State University of New York

State University of New York, which celebrates its 25th anniversary in 1973, is unique in its organization and the breadth of its educational mission. It is the largest coordinated, centrally managed multi-level system of public education in the nation.

In a recent report to the University's Trustees, Chancellor Ernest L. Boyer, said, "The State University welcomes not only the future architects, business executives, engineers, surgeons, and literary critics; but also future dairy farmers and medical technicians, accountants and social workers, foresters and automobile mechanics. And, through work in film, electronics, pollution control, data processing, police science, urban studies and similar fields, the University seeks to educate persons for tomorrow's roles as well as those of today."

Since its founding in 1948, the State University has grown from 29 State-supported but unaffiliated campuses into an organized system of higher education comprising 72 institutions which enrolled 234,000 full-time and 127,600 part-time students in academic 1972-73.

Specifically, the University encompasses four university centers (two of which, Buffalo and Stony Brook, include health science centers); two medical centers; 13 colleges of arts and science: a non-residential college; three specialized colleges; six agricultural and technical colleges; five statutory colleges; and 38 locally-sponsored community colleges. Together, they offer students a choice of more than 3,100 academic specializations, representing more than 1,500 different degree programs. Twelve of the campuses offer graduate study at the doctoral level, 22 at the master's level.

Advanced degree study encompasses a wide spectrum, including agriculture, business administration, criminal justice, dentistry, education, engineering, forestry, life and physical sciences, medicine, nursing, optometry, pharmacy and veterinary medicine.

Four-year programs emphasize the liberal arts and science and include such specializations as teacher education, business, forestry, physical education, maritime service, ceramics and the fine and performing arts.

The two-year colleges offer associate degree opportunities in arts and science and in technical areas such as agriculture, business, civil technology, data processing, police science, nursery education, nursing, medical laboratory technology and recreation supervision. The two-year colleges also provide transfer programs within the University for students wishing to continue study toward a baccalaureate degree.

Responding to the needs of New York State's economically and educationally disadvantaged, State University has also established six urban centers and six cooperative college centers. The former provide training for skilled and semi-skilled occupations as well as college foundation courses for youths and adults in inner-city areas. The latter combine the resources of public and private colleges within a region in a joint effort to prepare students for full-time college programs.

Educational innovation has from the first been a University watchword.

With funding support from a private educational foundation, six of the University's senior campuses are experimenting with programs to shorten substantially the traditional four-year period of baccalaureate study.

Empire State College, the 72nd and newest institution, is a non-residential college whose students earn degrees without being attached to a specific campus or attending traditional classes. Its coordinating center at Saratoga Springs reaches out to students through regional learning centers.

State University is governed by a Board of Trustees, appointed by the Governor, which determines the policies to be followed by the 34 State-supported campuses.

The 38 community colleges operating under the program of State University have their own local boards of trustees. The State contributes one-third to 40 per cent of their operating costs and one-half of their capital costs.

The State University motto is "Let Each Become All He Is Capable of Being."
This catalog is up-to-date as of May 1, 1973. The College reserves the right to make changes in policy and regulations, as circumstances dictate, subsequent to publication. The College expects each student to have knowledge of the information presented in this catalog and in other College publications.
CONTENTS

State University of New York .................................................. Inside Front Cover
The Calendar ................................................................. iv
General Information .......................................................... 1
Admissions Requirements .................................................... 8
Finances and Financial Aid .................................................. 15
Academic Information ......................................................... 22
The Campus Community ....................................................... 26
Student Activities ............................................................. 29
Course Descriptions .......................................................... 108
State University Trustees and Administration ...................... 167
Agricultural and Technical College at Farmingdale College Council 167
Administration and Faculty .................................................. 168
Advisory Committees ......................................................... 190

PROGRAMS

Advertising Art and Design ................................................. 33
Agriculture ........................................................................ 39
Agronomy ........................................................................... 40
Animal Science .................................................................... 41
Poultry Science .................................................................... 42
Aerospace Technology .......................................................... 46
Air Conditioning Technology ................................................. 45
Automotive Technology ........................................................ 46
Biological Technology ......................................................... 49
Biological Research ............................................................. 50
Biological Oceanology ......................................................... 51
Pest Control Technology ...................................................... 52
Laboratory Animal Research Technology ......................... 52
Business Administration ..................................................... 54
Chemistry ........................................................................... 56
Civil Technology-Highway .................................................. 56
Community Service Assistant .............................................. 61
Construction Technology Architectural Technology .......... 60
Data Processing .................................................................... 63
Dental Hygiene ..................................................................... 65
Electrical Technology-Electronics ........................................ 67
Engineering Science ............................................................ 69
English .............................................................................. 70
Food Processing Technology ............................................... 71
Foreign Languages ............................................................. 72
Graphic Arts and Advertising Technology ......................... 73
Liberal Arts ........................................................................ 75
Mathematics ....................................................................... 76
Mechanical Technology ....................................................... 77
Medical Laboratory Technology ......................................... 79
Mortuary Science ............................................................... 80
Nursery Education ............................................................. 81
Nursing .............................................................................. 84
Ornamental Horticulture ...................................................... 87
Floriculture ......................................................................... 88
Landscape Development ....................................................... 89
Nursery Management ......................................................... 90
Turfgrass Management ...................................................... 90
Photographic Technology .................................................... 94
Physical Education ............................................................. 96
Physics ............................................................................... 98
Police Science ..................................................................... 98
Correctional Administration ............................................... 99
Recreation Leadership ....................................................... 101
Secretarial Science-Advertising, Executive, Legal, Medical .. 103
Social Science ................................................................. 106
Preparatory Programs ......................................................... 106

Cover design by Joe Vissichelli with Larry Mainieri.
CALENDAR

FALL SEMESTER 1973

August 30, 31—
September 4
September 5
September 20
October 13
November 2
November 22-25
December 18
December 19, 20, 21
December 21
January 3

Registration
Classes Begin
Last Date to Request Curriculum Change
Homecoming—Open House
Midterm Deficiency Date
Holiday
Classes End
Final Examinations
Semester Ends
Grades Due

SPRING SEMESTER 1974

January 16, 17, 18
January 21
February 4
March 15
April 8-16
May 14
May 15, 16, 17
May 17
May 20
May 22

Registration
Classes Begin
Last Date to Request Curriculum Changes
Midterm Deficiency Date
Holiday
Classes End
Final Examinations
Semester Ends
Grades Due
Commencement
GENERAL INFORMATION

College History

The State University College at Farmingdale was established by the New York State Legislature in 1912 and was originally known as the New York State School of Agriculture. It was later known as the State Institute of Applied Agriculture and subsequently as the State Institute of Agriculture, and still later as the Long Island Agricultural and Technical Institute. The present name—State University Agricultural and Technical College at Farmingdale—was determined by the Board of Trustees of the State University of New York in December, 1964. Geographically, the college is ideally located to serve the Long Island community. Although the majority of students commute, housing for nearly 1300 students is provided in several college dormitories.

Initially, the college offered a four-year agricultural program. In the decade following its founding, additional courses and programs were added in agriculture and ornamental horticulture. In 1920, the regular four-year offering was limited to a three-year program and in 1935 and 1936, the curriculum was reduced to two years.

The increasing need for technically trained men and women during World War II and during the post-war period required the addition of industrial-technical programs. These were added in 1946. To accommodate the new curriculums a building in the village of Farmingdale was leased.

In 1948 the college became a unit of the newly-established State University of New York. This also was the year that the Evening and Extension Division was formed. Three years later all curriculums were approved for the granting of the Associate in Applied Science degree.

Accreditation by the Middle States Association of Colleges and Secondary Schools was achieved in 1952, which was the year that the Industrial-Technical Division was moved to the main campus. In addition to the Middle States accreditation, the college’s Dental Hygiene program is accredited by the American Dental Association, the Aircraft Operations Technology program is approved by the Federal Aviation Agency, and the Engineers’ Council for Professional Development has accredited many of the engineering technology programs.

At the present time the College enrolls over 5,000 full time and 7,000 part-time students.
Objectives of the College:

1. To provide opportunities for personal development;
   a. That will assist students to think clearly, to communicate effectively; and to assimilate, analyze and synthesize knowledge for the solution of individual and group problems.
   b. That will stimulate student interest and participation in appropriate physical, cultural, and social activities.

2. To prescribe standards for productive employment;
   a. That are both theoretical and practical so that students may become proficient in and knowledgeable about their chosen fields of activity.
   b. That are designed to develop attitudes and ethics so that students will acquire the personal qualities essential to successful employment.

3. To prepare students for participation in a democratic society;
   a. By employing democratic processes, in curricular and extracurricular activities so that students will learn to participate efficiently in group decisions and actions.
   b. By fostering insights into aspects of college, community, state, national, and international problems, so that students will understand the various levels, characteristics, and types of government.

The College is authorized to offer two-year programs of study beyond the high school level which will qualify students for direct placement in various technical and related fields. Subject to this authorization, the College subscribes to the following objectives:

1. To aid the student in developing abilities and competence in his technical field. To accomplish this end each curriculum offers sound theoretical instruction along with actual experience in practical phases of the work. In addition, the College endeavors to induce its students to develop attitudes and ethics which make for optimum on-the-job relationships in each occupation.

2. Since there is more to living a life than earning a living, the College endeavors to assist each student in developing his potentialities so as to live a happy, healthy, responsible, and productive life. Thus the College provides opportunities for students to learn to think clearly; to communicate effectively; to understand and appreciate their cultural and intellectual heritages; to be responsible members of families, of local communities, of national and world societies, and of any other groups of which they are part.
3. To serve business, industries, professions and units of government by providing competent personnel in technical and related fields. The College faculty keeps abreast of the changing needs in our technological society by continuing educational experiences among which are professional improvement through graduate study, meetings with other professional groups, visits to business enterprises, consultations with advisory groups, and periodic surveys of our graduates.

4. To serve society by stimulating students to develop their respective capacities for participating in and contributing to the democratic way of life; by making them mindful of the fact that all future generations are dependent upon the world's natural resources that are now entrusted to our common stewardship; by encouraging them to exercise restraint, consideration, and justice in individual and group relations with their fellow men throughout the world; and by helping them to understand that only by making a contribution to the future can a person or a generation pay its debt to the past.

The Curriculum

The college course of study is specifically designed to achieve college objectives. The Engineering Science curriculum and the Liberal Arts curriculum are presented as the first two years of a conventional four or five year college program. Students enrolled in these programs are expected to transfer and are guaranteed a place in a four year school after earning the Associate in Arts (A.A.) or Associate in Science (A.S.) degree.

The remaining 26 programs originally were intended to be “career” programs rather than “transfer” programs. However, an increasing number of four year programs, similar to and a natural extension of our career oriented programs, are being developed at four year universities and colleges throughout the country. Also some four year schools are instituting more flexible transfer admission requirements. Along with the increase in relevant programs and the changes in transfer admission policies, there is a growing number of students who continue their education after completing one of our career programs and earning the Associate in Applied Science (A.A.S.) degree. Still, the programs leading to the A.A.S. degree are considered career programs and the graduates have been educated for specific occupations rather than transfer. Anyone considering enrollment in an A.A.S. degree program who is concerned about transfer potential should consult with a counselor.

Visits by Admission representatives of four year colleges will be made during the academic year. Information concerning these visits will be posted around campus. Students planning on transfer should consult with these representatives.
Each academic year consists of two semesters. Courses in English, social science and either mathematics or the natural sciences or both are required for all students. During the second year advanced courses provide for concentration in underlying theory and applied science appropriate to the field of specialized, reinforced by suitable laboratory experiences.

The College reserves the right to cancel any course or curriculum option where enrollment does not warrant the offering of the course or option.

Library

A college library derives its strength from its collection and from the staff who are trained to make library materials useful to the students.

The many and varied curriculums are supported by a collection of 80,000 volumes. Designated as a United States Depository for the federal government, the library is able to make available a wide selection of documents to the students and faculty and to the community at large. Librarians are involved in individual and group instruction for the entire seventy-seven hour week.

Of the 950 periodical and newspaper subscriptions, many are also available on microfilm. Microfilm readers, reader-printers and a copying machine are useful in assisting students to make the fullest possible use of materials.

A separate area in the library provides facilities for individual or group viewing of slides, films, film strips, film loops and other visual materials. Magnetic tape recorders and record players give access to a large collection of phonograph records and taped materials.

Registration and Accreditation

All curriculums have been registered by the State Education Department of the University of New York and are approved for the purpose of awarding the degree of Associate in Science (A.S.) to graduates of the Engineering Science curriculum and the Business Administration curriculum, the Associate in Arts (A.A.) to graduates of the Liberal Arts curriculum and the Associate in Applied Science (A.A.S.) to graduates of the degree granting technical programs.

The Middle States Association of Colleges and Secondary Schools has granted accreditation to the State University of New York as an entity, and this accredited status applies also to the State University Agricultural and Technical College at Farmingdale.

The College is approved by the Veterans Administration for the training of veterans under the Veterans' Readjustment Benefits Act of
The Dental Hygiene curriculum is accredited by the American Dental Association.

The Nursing curriculum is accredited by the National League for Nursing.

The Aircraft Operations Technology curriculum is approved by the Federal Aviation Agency to provide Basic and Advanced Ground School for Private and Commercial Pilots.

The Engineers' Council for Professional Development has accredited curriculums in Air Conditioning Technology, Chemical Technology, Civil Technology—Highway, Construction Technology—Building, Electrical Technology—Electronics, and Mechanical Technology.

Veterans

The College is approved by the Veterans Administration for the training of veterans under the Serviceman's Readjustment Benefits Act of 1966, in addition to veterans, and eligible dependents of deceased veterans, attending under the Korean Bill and War Orphans Education Assistance Act. Under these laws eligible students are required to pay their own tuition and fees. They, in turn, receive financial benefits directly from the Veterans Administration. Upon receipt of the Certificate of Eligibility from the Veterans Administration, the student should present said certificate to the Student Personnel Office for completion.

Urban Center

Recognizing the need to serve an ever widening circle of Long Island residents, the State University of New York has established an Urban Center for unemployed and underemployed persons 18 years of age and older. Located on the campus of the Agricultural and Technical College at Farmingdale, the Center is equipped to provide tuition free occupational and job related academic training for persons interested in improving themselves personally and vocationally, but unable to enroll in a degree granting college program.

The non-credit courses are designed for three groups of persons:—those already employed who need further training in their chosen vocations; those now employed who seek new skills for better job placement, and those who will use this program as a pipeline to college, or specialized careers.

For Registration Information and Applications Please Phone or Write
Address: SUNY URBAN CENTER
     Telephone: 420-2280
FARMINGDALE, N.Y. 11735
The Audio-Visual Services Department creates, for instructional purposes, films, video tapes, audio tapes, slides, transparencies, and other instructional aids. A television studio is maintained in Whitman Hall with two Vidicon-cameras, a dissolve and special effects unit and film chain. A language laboratory-dial access retrieval system is installed in Nathan Hale Hall for both classwork in languages and for individual student use in all disciplines.

Equipment may be borrowed under proper authority for classroom support and other college activities.

With the Fall 1973 opening of the Thomas D. Greenley Library, Resources Center, available media services will be greatly expanded.
Evening College

The Evening College provides degree and certificate programs as well as individual courses designed to meet the part-time educational needs of the Long Island Community.

Programs are planned to develop technical competence for those already employed as well as those who wish to prepare for or to change employment. The Evening College cooperates with business, industrial, union, community, and professional groups in organizing and conducting short courses, seminars, and special educational programs to meet their needs.

Summer Session

The Evening College conducts Summer Sessions which offer an opportunity for students to improve their readiness for college through college preparatory courses in science, mathematics and English. In addition, many college level courses are offered, which permit students to take advanced work or to rectify previous college deficiencies.

The Campus

The College campus of some 380 acres is situated one and one-half miles north of the village of Farmingdale, on Melville Road. It is just off Route 110, about midway between the Southern State Parkway and the Long Island Expressway and Northern State Parkway.

Field Trips

The location of the College affords many opportunities for field trips to supplement classroom and laboratory instruction. Field trips enlarge and crystallize on-campus educational values; they are an integral part of the training.

Faculty-Student Association

The Faculty-Student Association is a non-profit corporation formed to promote and cultivate educational and social relations among the students and faculty of the State University at Farmingdale. Any reserve funds which are received from its operations must be used to promote all-college educational purposes. The Association takes a responsibility for supervision of the College Bookstore and all assessments voluntarily levied by the students on themselves.
ADMISSIONS REQUIREMENTS

Admission to this College and to all other colleges of the State University of New York are based on the academic qualifications of the respective applicants, and are made without regard to the race, color, creed, sex, or national origin of individuals.

1. Applicants must be graduates of approved four-year high schools, or hold a high school equivalency diploma or its equivalent.

2. Accepted applicants must submit evidence of appropriately satisfactory health in advance of registration.

3. Applicants must have satisfactorily completed at least 16 units of high school credit, which must include as a minimum the following specific curriculum requirements. Courses listed as recommendations are suggested for additional benefit.

Two-Year Degree Programs

Advertising Art and Design

Art 1 unit
Student portfolios will be reviewed
Tests in art aptitude and ability will be given to all candidates

Agriculture, Food Processing Technology, and Ornamental Horticulture

Mathematics 1 unit (Elementary Algebra required)
Science 2 units (Biology and Chemistry recommended)

Biological Technology

Mathematics 1 unit (Elementary Algebra required; Intermediate Algebra recommended)
Science 2 units (Biology and Chemistry required)

Business Administration

Mathematics 1 unit (Elementary Algebra required)

Community Service Assistant

Mathematics 1 unit (Elementary Algebra required)
Correctional Administration
Mathematics 1 unit (Elementary Algebra required)
Science 2 units

Data Processing
Mathematics 1 unit (Elementary Algebra required)

Dental Hygiene
Science 2 units (Biology and Chemistry required)

Engineering Science
Mathematics 3½ units (Elementary Algebra, Plane Geometry, Intermediate Algebra, Advanced Algebra required)
Science 1 unit (Physics required)

Graphic Arts and Advertising Technology
Art 2 units
Mathematics 1 unit (Elementary Algebra required)

Industrial Technologies*
Mathematics 2 units (Elementary Algebra and either Plane Geometry or Intermediate Algebra required)
Science 1 unit (a physical science course with associated laboratory; Chemistry or Physics recommended)

Liberal Arts and Sciences**
Mathematics 2 units (Elementary Algebra required; Intermediate Algebra recommended)
Science 2 units (Biology, Chemistry or Physics recommended)
Foreign 2 units recommended
Language

* Includes Aerospace, Air Conditioning, Automotive, Civil, Construction, Electrical and Mechanical.
** Open to students from Nassau and Suffolk Counties.
**Medical Laboratory Technology**
Mathematics 2 units (Elementary Algebra required)
Science 2 units (Biology and Chemistry required)

**Mortuary Science**
Mathematics 1 unit (Elementary Algebra recommended)
Science 2 units (Biology and Chemistry required)

**Nursery Education**
Mathematics 1 unit (Elementary Algebra required)
Science 2 units (Biology recommended)

**Nursing**
Mathematics 1 unit (Elementary Algebra required)
Science 2 units (Biology and Chemistry required)

**Photographic Technology**
Mathematics 2 units (Elementary Algebra, and either Plane Geometry, or Intermediate Algebra required)
Science 1 unit (A Physical Science course with associated Laboratory; Chemistry or Physics recommended)

**Police Science**
Mathematics 1 unit (Elementary Algebra required)
Science 2 units

**Recreation Leadership**
Mathematics 1 unit (Elementary Algebra required)
Science 2 units (Biology recommended)

**Secretarial Science—Advertising, Executive, Legal**
Mathematics 1 unit (Elementary Algebra required)

**Secretarial Science—Medical**
Mathematics 1 unit (Elementary Algebra required)
Science 2 units (Biology and Chemistry recommended)
One Year Certificate Programs
Aerospace Service Aide
Audio-Visual Communications
Developmental Studies
Ornamental Horticulture
Pre-Engineering Technology
Mathematics 1 unit
Science 1 unit

Supplemental Admissions Information

The College encourages all applicants to take the New York State Regents Scholarship Examination. The Regents Scholarship Examination is given in all New York State high schools each year, usually in October. Applicants may apply for this or an acceptable equivalent examination through their local high school.

Out of state applicants and members of the Armed Forces, as well as New York State residents who do not take the New York State Regents Scholarship Examination, may submit the College Board Scholastic Aptitude Tests in lieu of the Regents examination. For further information and application materials for the Scholastic Aptitude Tests write to either (1) College Entrance Examination Board, Box 592, Princeton, New Jersey 08540; or (2) College Entrance Examination Board, Box 1025, Berkeley, California 94701.

Although the above examination is not required by the College, the results, when submitted, are considered in selecting students as well as for guidance purposes. These, and additional tests, may at times be required. Academic weaknesses are scrutinized, and remedial programs recommended or required where necessary.

Applicants with a subject deficiency may be required to correct the deficiency prior to registration.

Applicants may be requested for a personal interview.

Scholastic record, extra-curricular activities, out-of-school experiences, health, physical ability, test results, and personal interview may all be considered in evaluating an applicant’s preparation for college. From this information the candidate’s acceptability is ultimately determined. The College operates on a rolling admissions basis accepting qualified candidates on a first-come, first-served basis.*

* Exception: All applications to Dental Hygiene and Nursing submitted by December 15 will receive equal consideration.
Application for Admission

Persons desiring to file an application should write to the Director of Admissions, State University Agricultural and Technical College, Farmingdale, New York 11735 or their district high school for an application form. A non-refundable application fee is required of all applicants.

Admission and Registration

First semester students in most curriculums are admitted only in the fall semester. Transfer students in most programs may be considered for all semesters.

Registration is required before a student may attend classes. This involves the payment of all charges as outlined in the section on Expenses. Students registering late or reporting late for the work of any semester are accountable for absences incurred thereby and are required to pay a minimum penalty fee of $10.00.

ADVANCE DEPOSIT REFUNDS

Both Advance Tuition and Room Deposits are refundable from the State Comptroller’s Office in Albany. Request for refund of the Advance Tuition Deposit should be directed in writing to the College’s Business Office on or before May 1 for the Fall Semester and November 1 for the Spring Semester. Refund requests received after these dates will be honored only for one of the following reasons:

1. Entrance into Military Service.
2. Failure on the part of the accepted applicant to fulfill all admission conditions as stated in the Certificate of Admissions.
3. Circumstances to be considered beyond the control of the applicant as judged by the Chief Administrative Office of the College.
4. Advance Deposits received for acceptance, issued after May 1 or November 1 will be refundable providing such requests are received within 30 days after notification of acceptance and providing, further, that such notification is received before the first day of classes in the term for which the Advance Deposit was made.

The Advance Room Deposits shall be refunded in full if either of the following two conditions are met:

1. If the application for refund is made earlier than two months before the beginning of the term for which the Advance Room Deposit was made or within 30 days of notification of acceptance, whichever is later.
2. If the application for refund was made later than as stated above, the refund shall be granted only if:
   a. The student withdrew to enter Military Service.
   b. The student withdrew due to conditions beyond his control as certified and approved by the Chief Administrative Officer of the College.

Procedure for Applicants from Countries Other Than the United States

1. Submit request for application material.
   a. Note clearly the number of years completed in elementary and secondary, and college or university study. Applicants must have successfully completed the equivalent of twelve years of United States elementary and secondary school study.
   b. State specific field of interest or study.

2. After receiving application material:
   a. Submit completed application by at least the end of May. Foreign student applicants are considered for admission to only the Fall semester.
   b. Mail completed personal data form together with photostatic copy and translated copy of school records which clearly indicate highest level of study completed. Copies must be attested as true.
   c. Submit substantiation of knowledge of the English language. All applicants whose native language is not English must sit for The Test of English as a Foreign Language (TOEFL) and have the test results forwarded to the College.
   d. Submit a certified statement describing the manner in which expenses for travel and study are to be paid.

Admission to Advanced Standing

An applicant may be admitted to advanced standing to a total maximum of thirty (30) credits by any one or combination of the following:

A. Transfer from Accredited Institutions

All applicants who have attended other colleges must meet curriculum entrance requirement and must submit transcript of their previous college records and indication of honorable dismissal. Students wishing transfer credit for courses must submit official transcripts from their previous colleges to the Director of Admissions and follow the regular admissions procedure. Transfer credit will be granted for course work completed at regionally accredited colleges with minimum grade of "C", provided the level and the content were substantially equivalent to that
offered at Farmingdale. Transfer credit may also be awarded for grades of “D” if the student can satisfactorily demonstrate proficiency in the subject matter to the department involved. An individual may transfer a maximum of thirty (30) credits.

B. Standardized Testing

A student may obtain college credit by standardized tests such as the College Proficiency Examination Program (CLEP) and the United States Armed Forces Institute Examination (USAFI). Credit can be obtained in subject areas and for general examinations with departmental approval. The student may also receive advanced standing and/or credit if any for specific courses (if applicable) taken through the Advanced Placement Program. For further information about these programs and their applicability to the programs at this college, write to the Director of Admissions.

C. Credit by Departmental Examination

Credit may be granted for course work where the individual has gained knowledge and mastery of the subject matter or has attained a satisfactory level of proficiency in a skill through life experience or study at non-accredited institutions. The student will be required to verify his level of achievement to the department by means of appropriate written and/or oral examinations, or by demonstrating proficiency in a skill. Wherever applicable and whenever appropriate, the individual will be required to take CPEP or CLEP examinations. A maximum of 30 credits can be awarded by means of Departmental Examination. A $12.00 fee is charged for each examination.

Credits gained by means of Advanced Standing shall be considered full college credits and need not be made up by other courses. However, no Achievement Points shall be awarded for credits gained through advanced standing.

Awarding of credit for experience or course work completed more than ten years prior to the individual application to a degree program requires the evaluation by the department for each subject concerned. In such instances the individual may be denied credit, granted credit or be advised to apply for credit by examination.

Visiting the College

The College encourages interested people to visit the campus. Students who are considering enrollment at Farmingdale will find this an excellent opportunity to learn more about the courses of study. Before visiting the College, it is strongly urged that the prospective applicant and his parents review the catalog and supplementary information avail-
able through the local high school Guidance Office or from the Office of Admission at the College.

The Office of Admissions, located on the first floor of the Administration Building, is open throughout the year. Counselors are available for interviews Monday through Friday from 9:30 A.M. to 4:30 P.M. It is advisable to schedule an appointment in advance of the visit.

Handicapped Students Services

In 1971 the State University at Farmingdale initiated a program supported in part by a Federal Education Act Grant, to make the College's programs and facilities more accessible to the physically handicapped. Farmingdale now provides a variety of supportive services which include guidance, accessible facilities, special educational equipment, and an electric-lift bus.

For more information, contact Student Personnel Division for Special Programs.

FINANCES

Tuition

The State University Board of Trustees has established a policy of uniform tuition charges. Residents of New York State are assessed a tuition of $650.00 a year. Non-residents of New York State are assessed $1075.00 a year. Part-time students are assessed a charge of $21.50 for each credit hour.

Board**

- Five-day plan (15 meals/week) $270.00 per semester
- Seven-day plan (21 meals/week) $355.00 per semester

Insurance

- Accident coverage $15.00 per academic year
- Health coverage $86.00 per academic year
- Graduation Fee $12.50 paid 4th semester
- Residence Hall Services (Residents only) $7.00 per semester
  (optional Linen Service is available at an additional cost)

Dormitory Telephone Service

Optional

Student Nursing Fee

$20.00 per academic year

Late Registration Charges

$10.00 per semester

Change in Program Fee

$5.00 per course

* Part-time students pay $0.85 per credit per semester.

** Resident students are required to participate in the Board Plan. Fees for Board are subject to change.
FEES AND CHARGES EXPLAINED

THE COLLEGE FEE is required of all students by State University. It includes the cost of general laboratory materials and supplies.

THE STUDENT ACTIVITY FEE supports student activities; includes admission to all home athletic contests, a subscription to the Rambler, the student newspaper, and a copy of the Islander, the student yearbook.

INSURANCE. An accident and health insurance policy covering most medical payments is maintained for the welfare of the students. The accident coverage provided by the College is required by all students. Health insurance is optional for commuting students but required by resident students, unless a certificate of insurance is furnished that shows coverage equal to the health policy being offered by the College.

The GRADUATION FEE is required of all seniors, payable before the beginning of the fourth semester, to defray in part the cost of renting caps and gowns, the diploma, and the commencement expenses.

The RESIDENCE HALLS SERVICE FEE. This fee provides funds for the Student Inter-Dormitory Council activities, educational and social programming within the dorms, educational and training materials, lecture series, films, etc., and other similar activities. Linen services are also provided under this fee at additional cost.

ROOM CHARGES cover the cost of a room on a seven-day a week basis. All pertinent information on the subject is provided in the “Manual for Resident Students.”

BOARD CHARGES. The College requires that all students residing in dormitory facilities on campus purchase either a five-day meal ticket or a seven-day meal ticket. Meal ticket refunds are prorated on the semester but require two weeks notice in writing.

TELEPHONE SERVICE is available in some dormitory facilities. Request for telephone service should be handled directly with the New York Telephone Company.

Advance Deposits

An Advance Deposit of $50.00 is required according to instructions conveyed in the Students Certificate of Admissions. This Advance Deposit is applicable towards tuition due at registration.

A Room Application Fee of $50.00 is required of any Student who wishes to apply for a room on campus. This application fee, which is applicable to the room charge, is due at the time the Student submits his Housing Application. Students dismissed from the Residence Hall as a result of disciplinary action are not entitled to any refund of room and board charges.
Effect of Withdrawals on Refunds

A student who has been given permission to withdraw after instruction has begun, may, at his option, be granted either a transfer fee credit within the State University system, or a refund of a portion of his tuition and fees. The Student Activity Fee is not refundable unless prior approval is obtained from the Chief Administrative Office. No consideration will be given to refunding this fee until the student has completed the formal withdrawal procedures.

Total Estimated Cost

Estimated cost for students who commute will range from $1,400.00 to $1,600.00 for one academic year (two semesters). For resident students, from $2,400.00 to $2,600.00.

Estimated expenses per academic year are computed as follows:

<table>
<thead>
<tr>
<th></th>
<th>Residents</th>
<th>Commuters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$650.00</td>
<td>$650.00</td>
</tr>
<tr>
<td>Fees</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Room</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Board:</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Five-day (15 meals/week)</td>
<td>520.00</td>
<td>660.00</td>
</tr>
<tr>
<td>Seven-day (21 meals/week)</td>
<td>660.00</td>
<td></td>
</tr>
<tr>
<td>Books</td>
<td>225.00</td>
<td>225.00</td>
</tr>
<tr>
<td>Travel</td>
<td>100.00</td>
<td>325.00</td>
</tr>
<tr>
<td>Personal Expenses</td>
<td>275.00 to 375.00</td>
<td>275.00 to 375.00</td>
</tr>
</tbody>
</table>

Call to Military Service

If either the date of a student's actual induction into active military service, or the reporting date of a reservist's recall to active military service occurs during an academic semester, the student will be entitled to a full refund of all fees and charges for that semester. This is subject to the following exception:

If the student, as of the date of entry into active military service, will have had opportunity to attend 75% of the class sessions, the instructor may make provision for special work or testing which will make possible achievement of credit for a semester's work in the course. No refunds, of course, will be available to a student who has earned credit for the semester's work.
FINANCIAL AID

The College participates in the College Scholarship Service (CSS) of the College Entrance Examination Board. Entering students seeking financial assistance are required to submit a copy of the Parents’ Confidential Statement (PCS) form to the College Scholarship Service, designating State University Agricultural and Technical College at Farmingdale as recipient. The Parents’ Confidential Statement (PCS) form may be obtained from a secondary school, the College Financial Aid Director, or the College Scholarship Service, P.O. Box 176, Princeton, New Jersey 08540, and should be filed before June first.

Scholarships, Loans, and Part-Time Employment

State Scholarships

The following grant awards are provided by the State of New York. Applications and information may be obtained from the Regents Examination and Scholarship Center, 99 Washington Avenue, Albany, New York 12210.

A student considering admission to college should begin assessing the source of his funds before registration. A student should be prepared to pay the tuition, fees, and other charges, including books and equipment, for the first semester. Special arrangements cannot be made to postpone payment of tuition and fees.

Tuition Awards: The New York State “Scholar Incentive Award Program” provides scholarships which apply towards tuition costs. Every resident of New York State is eligible to submit an application. For further details read the paragraph on Scholar Incentive Awards under the heading of “Financial Aid” in this catalog.

Tuition Payment: Payments for tuition, fees, room, board and similar charges are made at the beginning of each semester. In other words, $650.00 tuition charge is paid in $325.00 installments each semester. Fees, room, and board are paid on the same basis.

All charges are subject to change without prior notice.

Transportation to Field Experiences

Students in the Aerospace Technology, Community Services Assistant, Dental Hygiene, Medical Laboratory, Mortuary Science, Nursing, Nursery Education and Recreation Supervision curriculums are required to participate in regularly scheduled clinical and field experiences arranged by the College in local schools, hospitals, industrial plants and business establishments. Each student is responsible for arranging and paying the transportation to regularly scheduled off-campus experiences.
Since public transportation is not available, Freshmen Residence Hall Students in the above mentioned curriculums must apply to their Department Chairman at the time of registration for parking privileges, for their own cars in the Residence parking lot during any semester in which the student has regularly scheduled off-campus assignments. (Check individual curriculum page for courses so designated.)

**FEES**

All fees, tuition, and other charges are subject to change without prior notice.

- **College Fee** $12.50 per semester
- **Student Activity Fee** $25.00 per semester
- **Room Charges** $225.00-$335.00 per semester (depending on residence assigned)

**Scholar Incentive Award:** Available for New York State residents who are full-time students. The award is based on family net taxable income for the preceding year. All students who take at least twelve (12) credits a semester are encouraged to apply for this award.

**Regents College Scholarship:** This scholarship is based on the results of the Regents Scholarship Examination.

**Regents War Service Scholarships for Veterans:** Veterans with active duty service since October 1, 1961, who were state residents when inducted and are now residents may qualify for up to $350 a year.

**State Scholarship for Children of Deceased or Disabled Veterans:** This scholarship is obtained in the same manner as the Regents College Scholarship, except that the amount of the award may differ.

**The State University Scholarship Award:** This program provides that an enrolled student whose New York State net taxable family income is $2,000 or less shall be awarded an amount equal to the tuition charge for the year.

**Vocational Rehabilitation:** The State of New York provides assistance for handicapped students through the Division of Vocational Rehabilitation. While all handicapped students do not qualify, many are eligible. The local units of the Division of Vocational Rehabilitation should be consulted for further information.

**Federal Grants**

The Federal Government offers Educational Opportunity Grants ranging from $200 to $1,000 a year to students who meet specific crite-
ria. These grants are offered under the provisions of Title IV of the Higher Education Act of November 8, 1965. The grants will be awarded on the basis of exceptional financial need.

**Law Enforcement Assistance Grant**

The goal of the law enforcement student program is to encourage in-service law enforcement officers to upgrade their educational levels and to enhance their skills and capabilities. Payment for tuition and fees may not exceed $300 per semester.

**Nursing Scholarship**

The Health Manpower Act of 1968 amends the Public Service Act to strengthen the provisions of programs of financial aid to Nursing students. Students of exceptional financial need accepted for enrollment as full-time and half-time students will receive their scholarship to enable them to attend this College.

**Private Scholarships**

**Murcott Scholarship Fund**

Mr. and Mrs. Charles Murcott have established a scholarship fund to be entitled the "Murcott Scholarship Fund". Mr. Charles Murcott, President of Lumex, Inc. in Bay Shore, has provided this assistance to aid students who demonstrate financial need and who demonstrate promise of success in higher education. Preference is given to those students residing in Suffolk County and pursuing careers in Nursing and Mechanical Technology.

**Eleanor Grappel Memorial Scholarship**

The Eastern Produce Council has provided a scholarship fund to aid students majoring in Agriculture. The criterion for selection is financial need and outstanding achievement in an Agricultural curriculum.

**College Scholarships**

Scholarships have been made available to the College through the generosity of interested individuals, associations, and groups. The scholarships are awarded to students who have been in attendance at the College. Awards are based on academic achievement and other special criteria. These scholarships will be awarded through the academic departments of Nursing, Dental Hygiene, Secretarial Science, Food Proc-
Employment

There is a part-time employment program operated by the College. It is referred to as the College Work-Study Program.

The College Work-Study Program is a program intended for students who need part-time work to meet some expenses. Eligibility is based on family income and financial need. Applicants must be full-time matriculated students in good academic standing. Most positions are on-campus. Under this program, a student may work a maximum of fifteen (15) hours in any week that classes are in session, and a maximum of forty (40) hours during a scheduled vacation period. A student accepted for fall admission may work during the preceding summer. Students may continue their employment in this program as long as they meet the eligibility requirements.

Student Loans

The College participates in four major loan programs: The New York Higher Education Assistance Corporation (NYHEAC) loan, the National Direct Student Loan (NDSL), the Nurses’ Training Loan (NTL) and the Law Enforcement Education Program (LEEP). These programs allow students to borrow money to meet college expenses. No payment is due on these loans nor does interest accrue while the student is in college. Payment on a low interest rate basis begins after graduation with some provisions for forgiveness for all but the NYHEAC loan. A Parents’ Confidential Statement is required for all loan applications.

In addition to the Parents’ Confidential Statement a separate application must be filed for the NYHEAC loan. This may be obtained at local New York participating banks.

For further information on these programs write to the Director of Financial Aid, State University Agricultural and Technical College at Farmingdale, Melville Road, Farmingdale, New York 11735.

Faculty Student Loans

Short-term emergency loans are available to students. These loans are available for a period of thirty (30) days. Students may borrow up to $50 for a valid reason and repayment must be made within thirty (30) days. No loans will be approved within four weeks of the end of the semester.
ACADEMIC INFORMATION

Grades and Achievement Points

The following is the official College grading system:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Interpretation</th>
<th>Achievement Points Per Credit Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4.0</td>
</tr>
<tr>
<td>B+</td>
<td>Good</td>
<td>3.5</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3.0</td>
</tr>
<tr>
<td>C+</td>
<td>Satisfactory</td>
<td>2.5</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2.0</td>
</tr>
<tr>
<td>D+</td>
<td>Minimum Passing</td>
<td>1.5</td>
</tr>
<tr>
<td>D</td>
<td>Minimum Passing</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>Failure or Unofficial Withdrawal</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Withdrawn</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>Withdrawn Passing</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>Withdrawn Failing</td>
<td></td>
</tr>
</tbody>
</table>

In computing averages for all students only grades earned at the College are considered. A student must maintain a 2.0 grade point average in order to remain in good standing scholastically and to qualify for graduation. If at the end of any semester a student is deficient in achievement points, he may be placed on probation or considered for dismissal, depending on the extent of the deficiency. A student on recommendation of the Department Chairman may be required to carry a reduced schedule.

The following tables serve as a guide for determining academic status:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Academic Probation</th>
<th>Academic Dismissal</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Below 1.5</td>
<td>Below 1.1</td>
</tr>
<tr>
<td>Second</td>
<td>Below 1.7</td>
<td>Below 1.4</td>
</tr>
<tr>
<td>Third</td>
<td>Below 1.9</td>
<td>Below 1.7</td>
</tr>
</tbody>
</table>

To determine the achievement point average, multiply the achievement point value of each grade by the credits designated for each subject, then divide the total achievement points by the number of credits carried.

The Dean's List

The Dean's List is composed of all students who have an average of 3.00 or better, with the exception of those who have failures, incom-
pletes, “D” grades, or “Y” grades, or have earned less than twelve semester credits. The Dean’s List is determined at the end of each semester and is entered on the student’s permanent record.

A Grade of Incomplete

The grade “Incomplete” or “I” is reported when, for some reason beyond his control, the student misses the final examination or a portion of the required work of the course. No achievement points are awarded for an incomplete. All incomplete grades must be removed no later than 30 days after the beginning of the next semester. After that, they automatically become failures, unless the Dean of Students permits an extension of this period for good cause. Request for extension must be in writing. An incomplete or “I” does not constitute successful completion of a prerequisite.

Failing Grades and Repeating of Courses

To qualify for graduation, a student must successfully complete all requirements for his curriculum. Therefore, a failure must be repeated although in special cases an equivalent course may be permitted.

A student is advised to consult with his Department Chairman when repeat of a failed course is contemplated.

Formal approval from the Dean of Instruction must be obtained if a student wants to take a course at another college. In that case, credits, but not achievement points, will be applicable toward the degree.

If a student repeats a course in either the Day or Evening branches of this College, achievement points and credits will be applicable toward the degree.

A student must have approval of his Department Chairman if he wishes to repeat a course in order to raise a grade. The most recent grade in the course becomes his official grade for the course, including a “Y” grade.

W, X, and Y Grades

W—An approved withdrawal from a course without evaluation of progress. The Department Chairman and the Dean of Students, after consultation with the instructor concerned, may approve a grade of “W”.

The grade of “W” will not be given if the withdrawal takes place after the eighth week of classes unless the withdrawal results from unusual circumstances beyond the control of the student.

X—An approved withdrawal from a course while doing passing work. Permission of the Department Chairman and Dean of Students is necessary for this grade.
Y—An approved withdrawal from a course while doing failing work unless a grade of “W” has been approved. (The final grade of “Y” will be treated as an “F” in determining cumulative average.)

Students withdrawing from a course without permission will be carried on class rolls and will receive a final grade of “F”.

Permission to Carry Extra Course

Any student who wishes to carry more than the prescribed number of credits scheduled in his curriculum during any one semester, must receive written approval from his Department Chairman and the Dean of Students. To obtain approval to carry extra course, a student should have demonstrated his ability to achieve better than minimal (2.0) average work with no failing grade in the previous semester.

A student desiring to take courses at another college must consult with the Dean of Instruction before registering for these courses.

Course Auditing

Full-time students currently enrolled at State University Agricultural and Technical College at Farmingdale who wish to audit a course must secure permission to do so from the office of the Dean of Instruction.

School Closing

In the event that inclement weather, or other unforeseen circumstances make it necessary to cancel college classes, students are advised to listen to local radio stations announcing the College’s decision. A listing of such stations will be posted on campus bulletin boards and in such student publications as the Rambler and What’s New. In order to make up for work lost, classes that have been cancelled may be rescheduled at the discretion of the College.

Requirements for Graduation

1. Recommendation of the Faculty.
2. Satisfactory completion of the minimum number of credits required by the specific curriculum.
3. The earning of a 2.00 achievement point average.
4. Evidence of good character and moral worth.
5. Payment of all financial obligations.
6. Attendance at Official Convocations.
Procedure for Degree Candidates

1. Application for the Associate degree must be completed and filed with the Dean of Students no later than one month after beginning of semester in which degree requirements will be met. Applications for the degree are available from Department Chairmen.

2. The Graduation Fee is payable at registration for the fourth semester.

3. Candidates for degrees must comply, before end of third semester, with requests from the Placement Office for faculty recommendation.

4. Attendance at the June Commencement ceremony is expected of all students who have met the requirements of the degree.

Those unable to participate must inform the Dean of Students in writing.

Transcripts

A student leaving the College is entitled to have one transcript furnished at his request. No charge is imposed for this service. Additional transcripts will each cost $2.00. Requests for transcripts should be directed to the Registrar's office.

Attendance

To maintain highest quality of academic work, regular attendance at class is necessary. Absence from class is considered a serious matter and never excuses a student from class work. Students must complete all assignments, examinations, and other requirements of the course.

In some curriculums, clinical and laboratory experiences are gained in off-campus facilities. Students are required to provide their own transportation to these facilities.

Absences may be excused by the instructor after reviewing the student's justification. An excused absence gives the student the opportunity to make up work missed; it will not excuse him from that work.

If absence is anticipated, the student has the obligation to inform the instructor as far in advance as possible.

Students on the Dean's List will be extended discretion in attendance at lecture classes unless an announced examination is scheduled. Attendance at laboratory classes follows the standard attendance requirements.

Withdrawal from a Course

Students will not be permitted to withdraw from a course unless the Department Chairman and the Dean of Students concur that it is in the best interest of the student and the College. The same criteria will be
used in granting permission to carry a reduced semester schedule. Students who withdraw without permission will be carried on class rolls and will receive a failing grade for all assignments and tests not completed.

Withdrawal from the College

If a student wishes to withdraw from the College, he must submit, in writing, to the Dean of Students, a notification stating his reasons at least three days before he intends to begin withdrawal proceedings.

Students who do not follow this procedure will be carried on the College rolls and will receive a failing grade for all assignments and tests not completed in each course.

No full or partial refunds of fees can be made until a student has officially completed the withdrawal procedure.

Information about a student's record will not be released until financial clearance has been obtained by the student.

Placement

The Placement Office assists in securing both full- and part-time employment for its students and alumni. The Office functions to establish a liaison with industry, to solicit full- and part-time positions for students and graduates, and to advise students on career planning.

To aid in the employment of students, the Placement Office sponsors an on-campus recruitment program. During the spring semester, corporate representatives visit the campus and interview June graduates for possible employment with their home firm. Students must complete the necessary registration material to be eligible for participation in this free service.

THE CAMPUS COMMUNITY

Residence Halls

In September, 1970, the College at Farmingdale opened a new residence complex to increase its resident student population to 1,200 students. This increase permitted more students to experience the group living situation on the campus.

The resident hall program is coordinated by the Department of College Housing which consists of the Director, Resident Counselors and Resident Assistants. The Director and Resident Counselors are trained professionals in the field of counseling whose main function is to assist resident students in social, personal and academic development while at
The Resident Assistants are upper class students who live on the floors of the students to assist resident students in whatever way possible, to make the living experience a positive one.

Various activities are provided for the resident students throughout the academic year. Aside from the College-wide activities provided by the College Union Board, the Department of College Housing provides various special programs such as International Nights in the Dining Hall and various dances. Guest speakers are invited to the resident campus for informal discussion on various subjects of interest. All these activities are planned with the resident student government which is the Inter-Dormitory Council.

Recent policies that have been passed by the College include abolishment of Curfew for all students and both a limited and 24-hour visitation policy whereby students may visit each other in the residence halls. Students are given an option as to which type of living situation they prefer.

All residence halls are closed during extended holiday periods. Therefore, it is necessary for all resident students to make other arrangements during these periods.

Students withdrawing from the residence halls during an academic semester may receive pro-rated refunds for room and board charges depending upon the circumstances of their withdrawal.

Although the College has no accommodations for the families of married students it will assist married students, whenever possible, in securing off-campus housing.

Any questions concerning the residence halls should be addressed to the Director of College Housing.

Dining Hall

In September of 1970, along with the new residence halls complex, a new dining hall with a capacity of 1,600 students was completed. The dining hall has two meal ticket plans, a 5-day plan and a 7-day plan, at rates indicated in the catalogue. All resident students must participate in the meal plan. Excellent meals are prepared and served under the highest standards of nutrition and health. The Inter-Dormitory Dining Hall Committee assists the Dining Hall staff in menu planning and the arranging of special events.

No refunds are made for absences unless they are for prolonged and continuous periods. For students who go on field trips the Dining Hall staff will provide a box lunch. When a student is withdrawing, a two-week notice in writing must be submitted in order to have a refund initiated.

Because all meals and services are provided as near to cost as possible, rates are subject to change.
Snack bars providing limited food service accommodations are also available on campus.

**Student Automobiles**

All students are permitted to bring their cars on campus, except freshmen resident students, providing the automobiles are properly registered with the College. Regulations pertaining to the safe operation of automobiles are enforced by the Campus Security Officers. Freshmen enrolled in curriculums which schedule field experiences as part of their requirements may bring their cars on campus. Repeated or serious violation of traffic regulations will result in the withdrawal of the campus parking privilege. Automobiles must be kept in their assigned parking lots. Driving to and from classes is prohibited.

**Personal Property**

The College cannot assume liability for loss or theft of personal property or for damage to personal property on college grounds or in college buildings. Personal property is brought to the campus at the owner’s risk. The use and care of personal property is the responsibility of the owner.

**Conduct of Students**

The College, in order to insure the optimum conditions for pursuing the objectives to which it is committed, expects and requires each student to conform to the law and accept the moral and social practices of the local community, the state and the nation. In general, it is required that each student conduct himself or herself in such a manner as to uphold the good name of the College and that of his fellow students. Each student, in his relationships with other students, faculty and/or administrators, shall respect the rights and privileges of the other party and conduct himself or herself accordingly.

Specific rules and regulations governing student conduct are published in the *Student Handbook*.

**Counseling Services**

The Student Personnel Office, administered by the Dean of Students, provides counseling services for any enrolled student. These services include academic advisement, placement or career advisement, personal counseling, and financial aid consulting. Students are encouraged to seek counsel from members of the Dean’s staff at any time, for any reason. The use of this resource is left largely to the initiative of the student.
Student Health Services

The College endeavors to safeguard the health of all students while they are on the campus. A physical examination, required of all entering students prior to registration, furnishes valuable background information for the College Health Department.

The College's full-time nurses provide emergency medical service at the Health Service Center 24 hours a day when school is in session. Limited medical attention is also provided by the College's part-time physician. All students are urged to consult the nurse at the first indication of physical disorder or in case of accident, however slight the accident or disorder may seem.

In unusual circumstances, the College reserves the right to call a consulting physician or a specialist in case of illness, the expense to be borne by the student.

The College maintains first-aid cabinets in the campus buildings. Special medical supplies prescribed by a physician are paid for by the student. If a student requires continuous medical attention, he may be advised to return to his home or to place himself under hospital care.

The right is reserved by the College to exclude from continued class attendance any person who, in the judgment of the authorities, is not physically qualified to follow the regular curriculum program.

Dental Examination

A certificate of good oral health must be submitted by all freshmen before the completion of their second semester at the College. This involves an oral examination which may be performed by the College Dental Hygiene Clinic or by the student's personal dentist. If need for oral prophylaxis or remedial work is indicated, proper action must be taken. To aid in achieving this requirement, the Dental Hygiene Department will schedule appointments for all freshmen throughout the year. There will be no charge for the oral examination or the oral prophylaxis if obtained through the College Dental Clinic. General policy will be to refer remedial work to the student's personal dentist.

Student Activities

The College has, throughout its history, sought development of the whole student through encouragement of extra-curricular activities to supplement the academic atmosphere of classroom and laboratory. Farmingdale is proud of an activities program that provides outlets for a wide variety of student interests: professional, religious, cultural, social, recreational, journalistic, and governmental.
The President’s Luncheon

This activity has been scheduled to honor students who have been active in student activities during the year. At the annual banquet held at the end of the Spring Semester, the President of the College pays tribute to students falling under the aforementioned category. Awards are given to each student so that the student will always remember the event in his later years. Many students and faculty alike feel that this is the most honorable award that can be received by students.

Students are picked by the Faculty Advisors of each organization. They are requested by the Student Activities Office to nominate those fourth semester students who have contributed measurably to the program of the organization, giving of themselves freely for the good of the group.

Student Government Organizations

A. STUDENT SENATE—Eighteen senators and six student executive board members are selected to the governing board to act in matters which promote the interests of the College and its students. The Student Government Association (S.G.A.) has authority over all other student organizations, especially in the financial area, since the S.G.A. is responsible for distributing the monies taken in via student activities fees. In addition, the S.G.A. is involved with implementing changes in campus policy. Some of the College committees the Student Senate is involved with are as follows: Admissions and Academic Standards, Calendar, Disciplinary Hearing Committee, Faculty-Student Association, Alcohol Policy Committee, Blood Bank Committee, Orientation Committee, Safety Division Committees, and Tavern Committee.

B. INTER-DORMITORY COUNCIL—Students are elected from each dorm and meet at the Inter-Dormitory Council (IDC) meeting to discuss dormitory policy, recommend new policy, and plan activities for dorm students. Various standing committees (Food Service, Vending Machines, Dress Code, Social, etc.) exist which keeps IDC informed of current practice. The Council has been instrumental in changing dormitory policy, as well as making improvements in dormitory living.

The College Union and College Union Board

The COLLEGE UNION is the community center for all the members of the College family—students, faculty, administration, alumni, staff and guests; it is also an organization and a program. Together they represent a well-considered plan for the community life of the College. The COLLEGE UNION program contributes to the educational purposes of the College, for it serves as a citizenship training laboratory in
social responsibility and democratic leadership. Through its various boards, committees, and staff, the COLLEGE UNION BOARD provides a cultural, social and recreational program designed to provide the maximum opportunity for self-realization and individual growth in social competency and group effectiveness. The COLLEGE UNION RECREATION PROGRAM, featuring facilities for informal participation in billiards, table tennis, bowling, chess, and similar pastimes, is also under the advisement of the UNION BOARD.

On the Farmingdale campus the COLLEGE UNION BOARD is responsible for educating the student body outside the classroom, as described above, and accomplishes this task by sponsoring events such as, The National Shakespeare Company, A Ballet Company, An Outstanding Film Series, Coffee House Circuit, Big Name Concerts at a discount, Mystery Bus Trips, and mini concerts. The COLLEGE UNION BOARD also provides the entire student body with an accurate activities calendar. The total program of the College Union Board is left up to the discretion of the students. Any student who is interested in scheduling activities and selecting speakers, artists, films, etc. to benefit the total campus community should join the COLLEGE UNION BOARD and attend the regular meetings. THE COLLEGE UNION BOARD meets on Tuesdays (when no performance is scheduled) at 11:00 a.m. in Roosevelt Hall, Room 116. Feel free to stop by the Student Activities Office, also in Roosevelt Hall 116, for further information in this regard.

Student Organizations

At the heart of the entire activities program are some fifty student organizations, each of which benefits from the advice of at least one faculty sponsor. Rare indeed, is the Farmingdale student who does not affiliate with at least one of these groups during his two years on campus.

A. CURRICULUM CLUBS—Roughly, half of the student organizations are curriculum clubs designed to serve the pre-professional interests of students and relate directly to various academic departments. Some of the larger curriculum organizations are: Mortuary Science, Alpha Eta Rho (Aerospace), Police Science Club, Business Club, and Secretarial Science Club.

B. RELIGIOUS CLUBS—Religious Chaplains are available to students from the following faiths: Catholic, Episcopal, Jewish, Lutheran, Methodist, Christian Science, Baptist, Society of Friends. Students should contact the Student Activities Office, Roosevelt 116, for further information regarding the Chaplains. The religious clubs on campus are as follows: Newman Club, Canterbury Club, Christian Science Organization, Hillel Club, and Christian Bible Fellowship Assoc.
C. RECREATIONAL CLUBS—The College encourages participation in various leisure time activities. The following clubs help in attaining this goal: Gun Club, Judo Club, Chess Club, and Ski Club.

D. COMMUNICATION CLUBS—These important outlets for campus news and opinion are open to all students. Accomplished skills in writing, speaking, or the mechanics of publications and engineering are not required. The organizations are as follows: Rambler (newspaper), Islander (yearbook), Chanticleer (literary magazine), and WATC (am station).

E. SOCIAL-SERVICE ORGANIZATIONS—These organizations perform services to the local community on behalf of the College, as well as provide an opportunity for students to interact socially. The men's social service organization is Tau Kappa Beta; its female counterpart is Psi Theta Epsilon and Alpha Tau Sigma another service sorority.

F. CAMPUS WIDE ORGANIZATIONS—General organizations exist because students in the past have had additional interests other than those already mentioned. Each club listed below is self-explanatory via name: Black Student Union, Pamoja, Drama Club, Debate Association, International Club, Psychology Club, Parapsychology Club, and Los Latinos United.

G. HONOR SOCIETY—One of the greatest honors a Farmingdale student may receive is election to the local chapter (Mu Omega) of Phi Theta Kappa, the National Junior College Honorary Scholastic Society.

Social Events

In general, College social events (dances, pop concerts, etc.) are held throughout the year, either on campus in such facilities as the Log Cabin, Allard Field House, or the various lounges and halls on campus. Most of these events are under the direct sponsorship of various student organizations or the College Union Board. Admission to 70% of the activities are free since you pay a Student Activities fee each semester that is working for you.
The advertising business provides challenging career opportunities for young people with creative and artistic abilities. The advertising business is based upon the ability of specialists to consult with industry and business to produce effective communication with potential markets. In this capacity, the visual arts play a vital role in the dissemination of advertising via newspaper, magazine, direct mail, display, television and outdoor advertising. Advertising artists are employed in staff positions in advertising agencies, art studios, advertising departments of large companies and corporations, publishing and printing firms, television and motion picture studios and a variety of other business organizations.

Artists are involved in many phases of the creative development of advertising including the designing and execution of magazine and newspaper advertisements, brochures, and direct mail advertising; graphic design for television; technical and industrial art; illustration for books, newspapers and magazines; lettering and many other related forms of advertising art.

The curriculum at Farmingdale is structured to develop the skills and knowledge that are essential for the beginning advertising artist and to provide a foundation of competence to ensure successful advancement in the field. Emphasis in the program is placed upon layout and design, drawing, and the preparation of art for the various methods of reproduction in the graphic arts. Projects completed in the course of study are designed to provide a portfolio of samples that will enable the graduate to secure employment in the field.

**Typical Employment Opportunities**

<table>
<thead>
<tr>
<th>Art Director</th>
<th>Photo retoucher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Art Director</td>
<td>Advertising illustrator</td>
</tr>
<tr>
<td>Layout Artist</td>
<td>Production artist</td>
</tr>
<tr>
<td>Graphic designer</td>
<td>Magazine and book illustrator</td>
</tr>
<tr>
<td>Airbrush illustrator</td>
<td></td>
</tr>
<tr>
<td>Technical illustrator</td>
<td></td>
</tr>
</tbody>
</table>
## ADVERTISING ART AND DESIGN

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 105 Design Fundamentals</td>
<td>1 Class</td>
<td>2</td>
</tr>
<tr>
<td>AA 107 Drawing Fundamentals</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 108 Mechanical Art</td>
<td>1 Class</td>
<td>2</td>
</tr>
<tr>
<td>AA 109 Lettering</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0 Class</td>
<td>1</td>
</tr>
<tr>
<td>SC 107 Biology</td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 Class</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 103 Advertising Layout</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 104 Advertising Production I</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 106 Figure Anatomy</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 210 Merchandise Illustration</td>
<td>1 Class</td>
<td>2</td>
</tr>
<tr>
<td>EN 101 Introduction to Literature</td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0 Class</td>
<td>1</td>
</tr>
<tr>
<td>PH 112 Physical Science</td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13 Class</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 202 Advertising Layout</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 207 Figure Drawing I</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 211 Photo Retouching</td>
<td>1 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 219 Photography</td>
<td>1 Class</td>
<td>2</td>
</tr>
<tr>
<td>HU 115 Art Appreciation</td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 Class</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 209 Graphic Design</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 222 Advertising Production II</td>
<td>1 Class</td>
<td>2</td>
</tr>
<tr>
<td>AA 220 Figure Drawing II</td>
<td>3 Class</td>
<td>4</td>
</tr>
<tr>
<td>AA 212 Seminar</td>
<td>1 Class</td>
<td>2</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 Class</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 218 Fashion Illustration</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 221 Package Design</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 217 Industrial Drawing</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 223 Oil Painting</td>
<td>1 Class</td>
<td>2</td>
</tr>
<tr>
<td>AA 204 Advertising Illustration</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 213 Technical Illustration</td>
<td>2 Class</td>
<td>3</td>
</tr>
<tr>
<td>AA 229 Photography II</td>
<td>1 Class</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits Required: 69
Aviation constitutes an industry that requires large organizations staffed by highly skilled technicians. It is a complex force which is helping to remake our society, economy and world organization. The development and direction of this force toward the attainment of a better life for mankind offers a great challenge to youth.

The aviation industry needs men who possess a wide range of knowledge and ability. For example, in positions of flight control, air carrier operations, airport management, and related governmental capacities, there are found combinations of requirements for which much general education, as well as special technical training, is necessary. The degree of one’s leadership in this area depends upon the extent of one’s related information and one’s degree of technical competence.

This curriculum covers the essential elements that are involved in this highly diversified industry. The program is being continually revised and broadened to include the latest technical and operational developments as effected by this industry.

The flight portion of the Aerospace Program is unique in the Nation in that the students pay no fees for flight training. The College owns seven single engine aircraft, one multi aircraft, five GAT Simulators and is approved by the Federal Aviation Agency for both flight and ground training. Flying is taught by members of the faculty holding Certified Flight Instructor’s ratings.

Qualified students may take sufficient flight training in the senior year to qualify them for the private pilot’s license. Students who have enrolled with a private pilot license will be helped to obtain their commercial and instrument rating.

**Typical Employment Opportunities**

<table>
<thead>
<tr>
<th>Airways Operations Specialist</th>
<th>Airport Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airline Operations</td>
<td>Aircraft Operations</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Flight Dispatcher</td>
</tr>
</tbody>
</table>
## AEROSPACE TECHNOLOGY

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AO 100 General Aeronautics</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>AO 101 Aerodynamics</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>MA 124 Mathematics</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>PH 131 Physics</strong></td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>EN 100 English Composition</strong></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AO 103 Airport Planning &amp; Operations</strong></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>AO 104 Aircraft Systems</strong></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>MA 125 Mathematics</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>PH 132 Physics</strong></td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>EN 101 Introduction to Literature</strong></td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>SO Social Science</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AO 201 Aircraft Electronics</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>AO 202 Aircraft Power Plants</strong></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>AO 203 Navigation</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>AO 210 Simulator &amp; Instrument Flight Technique</strong></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>AO 211 Pilot Training (Flight Line)</strong></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>MA 126 Mathematics</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>SO Social Science</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
<td>18-19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AO 205 Air Traffic Control</strong></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>AO 206 Flight Technique</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>AO 207 Jet Propulsion</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>AO 208 Meteorology</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>AO 212 Pilot Training (Flight Line)</strong></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>PE Physical Education</strong></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>SO Social Science</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
<td>17-18</td>
</tr>
</tbody>
</table>

**Total Credits: 71-73**

**Open only to qualified students who receive permission of the Department Chairman, Students must provide their own transportation to the Flight Line.
AGRICULTURE

PROFESSOR ROBERT R. STOCKBRIDGE, Chairman

Agriculture in the United States has become highly technical. Agriculture is more than farming, it includes supplying the raw materials and services to farmers before producing, and then taking the production and grading it, packaging, marketing, processing, distributing, transporting products to the consumer in the desired form.

Many businesses basically depend upon agriculture, and the demand for technicians with agricultural knowledge and experience provides many opportunities for employment.

There is a definite trend for many of our graduates to continue their education. Many enter the College of Agriculture at Cornell University, and the Colleges of Agriculture in other states.

AGRONOMY

Agronomy is the art and science of managing farm land. Scientific agricultural planning and production are based upon knowledge of soil, crop and livestock management. In addition, land and water, the greatest natural resources, must be managed wisely for the benefit of present and future generations.

Typical Employment Opportunities

Farmer
Sales and Service
Farm Supply Store Manager
Feed and Fertilizer Salesman
Agricultural Chemical Salesman
Certified Seed Grower
Custom Farm Serviceman
Seed Salesman
Technical Assistant
Research Assistant
Produce Broker

Nematode Research Laboratory

The Laboratory is primarily concerned with research on the golden nematode disease of potatoes. It also conducts studies on other nematodes that attack potatoes, vegetables, and ornamental plants. Cooperative research is conducted with the New York State Department of Agriculture and Markets, United States Department of Agriculture, and the College.
POULTRY SCIENCE

The program is designed to provide the student with fundamental training and knowledge in the comparative nutrition, physiology, breeding, selection, and management of various classes of livestock and poultry science as a specialty. An understanding of the role of animal production in the National and world economy will be gained without the danger of overspecialization.

Throughout the first year, assignments to Livestock and Poultry Laboratory bring each student in direct contact with all the major farm animals and many of the crop procedures used with plants utilized for livestock feed. Fruit and vegetable production and marketing laboratories are also included. It is suggested that students work in agriculture, or in a closely related field, during the summer between the freshman and sophomore year.
Typical Employment Opportunities

- Poultry Breeder Manager of Processing Plant
- Hatchery Operator Poultry Products Serviceman
- Manager of Egg and Poultry Feed Company Manager
- Cooperative Egg Farmer Feed Salesman
- Broiler Grower Manager and Owner of Retail Poultry Store
- Turkey Grower Poultry Specialist for Feed Company
- Poultry Products Grader Supervisor in Processor Plant
  and Inspector

AGRICULTURE—POULTRY SCIENCE

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 103 Livestock and Poultry Laboratory</td>
<td>0 4 1</td>
<td></td>
</tr>
<tr>
<td>AG 105 Introductory Animal Science</td>
<td>1 2 2</td>
<td></td>
</tr>
<tr>
<td>AG 107 Soil Science</td>
<td>2 3 3</td>
<td></td>
</tr>
<tr>
<td>AG 110 Tractor Operation and Maintenance‡</td>
<td>2 2 3</td>
<td></td>
</tr>
<tr>
<td>CH 103 Chemistry</td>
<td>2 2 3</td>
<td></td>
</tr>
<tr>
<td>SC 114 Zoology</td>
<td>3 0 3</td>
<td></td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 15 18</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 101 Animal Anatomy, Physiology, and Health</td>
<td>2 2 3</td>
<td></td>
</tr>
<tr>
<td>AG 102 Genetics</td>
<td>3 0 3</td>
<td></td>
</tr>
<tr>
<td>AG 104 Livestock and Poultry Laboratory</td>
<td>0 4 1</td>
<td></td>
</tr>
<tr>
<td>AG 106 Poultry Production and Marketing</td>
<td>1 3 2</td>
<td></td>
</tr>
<tr>
<td>MA 100 Mathematics</td>
<td>3 0 3</td>
<td></td>
</tr>
<tr>
<td>SC 104 General Microbiology</td>
<td>2 2 3</td>
<td></td>
</tr>
<tr>
<td>EN 101 Introduction to Literature</td>
<td>3 0 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 11 18</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG 207 Farm Management Accounting</td>
<td>2 2 3</td>
<td></td>
</tr>
<tr>
<td>AG 210 Agricultural Construction &amp; Mechanization‡</td>
<td>2 3 3</td>
<td></td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0 2 1</td>
<td></td>
</tr>
<tr>
<td>SO — Social Science*</td>
<td>6 0 6</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>4† 0† 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 7 17</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>AG 202</td>
<td>Comparative Animal Genetics</td>
<td>2</td>
</tr>
<tr>
<td>AG 211</td>
<td>Animal Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>AG 213</td>
<td>Poultry Physiology and Health</td>
<td>2</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td>0</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science*</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td>3†</td>
</tr>
</tbody>
</table>

**Total Credits Required:** 16

* Please see Index for information about General Education courses.
† Approximate; depending on Elective.
‡ Optional for women students. (Suggest AG 218 Animal Care for First Semester.)
§ AG 108 Livestock and Poultry Practice required of all students during the year.
The control of comfort through the science of environment engineering has become one of our greatest industries. The demand for technicians in this field outstrips the supply many times. This program is among the most promising for those seeking to enter an industry which will increase with today's expanding population and building boom.

The field is particularly interesting for those desiring to own their own business, either in maintenance, design, or construction of air conditioning and heating facilities. Large consulting and construction engineering concerns, with world-wide operations, also have demands for these graduates. The modernization of older buildings and construction of new apartment buildings, stores, and factories in this area assures a continuing supply of employment opportunities.

This program of instruction is built around a strong core of general studies which includes English, Social Sciences, Mathematics, and Physical Science. This background is given the student to insure his ability to understand technological changes which come about as the advancement of scientific frontiers takes place.

The program of technical specialties is based upon knowledge gained from our graduates in the field, advice from industrial advisors, and criteria set by accrediting engineering societies. Well-equipped laboratories are used for exercise of the knowledge gained in the basic classroom studies. Complete air-conditioning and heating systems are designed using standard equipment and construction methods.

**Typical Employment Opportunities**

<table>
<thead>
<tr>
<th>Owner or Manager of Business:</th>
<th>Refrigeration, Heating and/or Air Conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Manager</td>
<td></td>
</tr>
<tr>
<td>Installation Supervisor</td>
<td></td>
</tr>
<tr>
<td>Service Manager</td>
<td></td>
</tr>
<tr>
<td>Systems Designer</td>
<td></td>
</tr>
<tr>
<td>Sales Engineer</td>
<td></td>
</tr>
<tr>
<td>Controls Technician</td>
<td></td>
</tr>
<tr>
<td>Manufacturer's Representative Estimator</td>
<td></td>
</tr>
<tr>
<td>Design Draftsman</td>
<td></td>
</tr>
<tr>
<td>Test Technician</td>
<td></td>
</tr>
<tr>
<td>Field Engineer</td>
<td></td>
</tr>
</tbody>
</table>

**AIR CONDITIONING TECHNOLOGY**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 101</td>
<td>Electricity</td>
<td>2 Class, 3 Lab</td>
<td>3</td>
</tr>
<tr>
<td>MA</td>
<td>Mathematics†</td>
<td>3 Class, 0 Lab</td>
<td>3</td>
</tr>
<tr>
<td>MT 102</td>
<td>Graphics</td>
<td>0 Class, 4 Lab</td>
<td>2</td>
</tr>
<tr>
<td>MT 103</td>
<td>Manufacturing Processes</td>
<td>2 Class, 2 Lab</td>
<td>3</td>
</tr>
<tr>
<td>PH</td>
<td>Physics†</td>
<td>3 Class, 2 Lab</td>
<td>4</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3 Class, 0 Lab</td>
<td>3</td>
</tr>
</tbody>
</table>

**First Semester**

Total Hours: 13 Class, 11 Lab, 18 Credit Hours
<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Credits</th>
<th>Additional Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Second Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 102</td>
<td>Air Conditioning Equipment I</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AC 103</td>
<td>Thermodynamics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>Mathematics†</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PH</td>
<td>Physics†</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>14</td>
<td></td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 201</td>
<td>Air Conditioning Equipment II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AC 202</td>
<td>Air Conditioning Principles I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AC 204</td>
<td>Heating Principles</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AC 211</td>
<td>Heating Equipment</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC 206</td>
<td>Air Conditioning Principles II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AC 207</td>
<td>Control Instruments</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AC 208</td>
<td>Engineering Measurements</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AC 210</td>
<td>System Design</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total Credits Required</strong>:</td>
<td></td>
<td></td>
<td>66</td>
</tr>
</tbody>
</table>

† Depending on High School Mathematics and Science Achievement. Students may elect: MA 120, 121 or MA 124, 125, 126. PH 101, 102 or PH 131, 132.

**AUTOMOTIVE TECHNOLOGY**

(An ECPD approved Engineering Technology Curriculum)

**PROFESSOR R. A. DENNISON, Chairman**

The objective of this program is to prepare technicians who will have a thorough understanding of mechanics and machines.

The automotive industry provides employment for many graduates in the sales, service, and experimental development of gasoline, diesel, and gas-turbine powered equipment.

The technical courses are automotive oriented. However, the components of the automobile are analyzed for their principles of operation as well as for their functions.

Thus having a comprehension of the fundamentals of mechanical devices, there is available to graduates a variety of opportunities in the many applications of mechanical, electrical, and fluid power.

The department is dedicated to assisting students in developing a thirst for knowledge, professional ethics, a sense of responsibility and a respect for the dignity of their fellowmen.
## Typical Employment Opportunities

**Automotive Diagnostician**  
**Warranty Processor**  
**Sales and Service Engineer**  
**Automotive and Diesel**  
**Research and Development Technician**  
**Service Instructor**  
**Insurance Underwriter and Adjuster**  
**Equipment Design and Installation**  
**Industrial Processes Engineering**  
**Writer—Technical Literature**  
**Dealership: Parts, Sales, and Service**

## AUTOMOTIVE TECHNOLOGY

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 102</td>
<td>Mechanical Power Equipment</td>
<td>2 Class, 4 Lab.</td>
</tr>
<tr>
<td>AT 104</td>
<td>Combustion Engines</td>
<td>2 Class</td>
</tr>
<tr>
<td>MA 124</td>
<td>Mathematics</td>
<td>3 Class</td>
</tr>
<tr>
<td>PH 131</td>
<td>Physics</td>
<td>3 Class</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3 Class</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td>0 Class</td>
</tr>
</tbody>
</table>

**Total Credit:** 13

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 103</td>
<td>Mechanical Power Equipment</td>
<td>2 Class, 4 Lab.</td>
</tr>
<tr>
<td>AT 105</td>
<td>Combustion Engines</td>
<td>1 Class</td>
</tr>
<tr>
<td>PH 132</td>
<td>Physics</td>
<td>3 Class</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>3 Class</td>
</tr>
<tr>
<td>MA 125</td>
<td>Mathematics</td>
<td>3 Class</td>
</tr>
<tr>
<td>MT 102</td>
<td>Graphics</td>
<td>1 Class</td>
</tr>
</tbody>
</table>

**Total Credit:** 13

### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 106</td>
<td>Engineering Materials</td>
<td>3 Class</td>
</tr>
<tr>
<td>AT 204</td>
<td>Electricity</td>
<td>2 Class</td>
</tr>
<tr>
<td>AT 214</td>
<td>Combustion Engines</td>
<td>1 Class</td>
</tr>
<tr>
<td>AT 216</td>
<td>Engineering Measurements</td>
<td>2 Class</td>
</tr>
<tr>
<td>MA 126</td>
<td>Mathematics</td>
<td>3 Class</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>3 Class</td>
</tr>
</tbody>
</table>

**Total Credit:** 14

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 213</td>
<td>Senior Seminar</td>
<td>1 Class</td>
</tr>
<tr>
<td>AT 215</td>
<td>Diesel Engines</td>
<td>3 Class</td>
</tr>
<tr>
<td>AT 217</td>
<td>Applied Mechanics</td>
<td>2 Class</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td>0 Class</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>3 Class</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td>5 Class</td>
</tr>
</tbody>
</table>

**Total Credit:** 14

**Total Credit Required:** 69

† Approximate: depending on Elective.
Basic cultural and science courses comprise the first year. Specialization in specific biological fields are offered in the second year through the selection of any one of several options or elective sequences.

Expanding research is producing many new drugs, toiletries, food additives, pesticides, growth stimulants, sterilants, and other compounds potentially valuable in public health, grooming, biology, nutrition, agriculture, and horticulture. Evaluation of those compounds on humans, animals or plants in research laboratories is essential before they can be approved for marketing.

In other areas, our increasing population is requiring the expansion of public health and medical services, the preservation and greater utilization of land, marine and fresh water resources, and the prevention and control of environmental pollution.

These evolutions have created additional demands for technically educated men and women in research and development activities, diagnostic and advisory services, and in sales.

To prepare students for careers in these fields, the Biology Science Department provides the following sophomore year options: Biological Research Technology, Pest Control Technology, Oceanology, and Laboratory Animal Research Technology.

### Typical Employment Opportunities

<table>
<thead>
<tr>
<th>Biological Aide</th>
<th>Environmental Control Technician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Technician</td>
<td>Marine Laboratory Technician</td>
</tr>
<tr>
<td>Research Assistant</td>
<td>Horticultural Research Technician</td>
</tr>
<tr>
<td>Junior Biologist</td>
<td>State Horticultural Inspector</td>
</tr>
<tr>
<td>Pesticide Salesman</td>
<td>Pesticide Screening Research Technician</td>
</tr>
<tr>
<td>Custom Spray Operator</td>
<td>Medical Laboratory Research Technician</td>
</tr>
<tr>
<td>Pest Control Operator</td>
<td>College and High School Laboratory Assistant</td>
</tr>
<tr>
<td>Public Health Inspector</td>
<td>Laboratory Animal Research Technician</td>
</tr>
</tbody>
</table>

### BIOLOGICAL TECHNOLOGY

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours Class</th>
<th>per Week Lab.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 107 General Chemistry</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>MA 105 College Algebra or MA 100 Mathematics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SC 106 Topics in Biology</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>SC 137 Zoology</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>9</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>
Second Semester*

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 110 Introduction to Organic Chemistry</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 101 Introduction to Literature</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MA 110 Statistics</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SC 136 Botany</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SC 108 Entomology or SC 105 Anatomy and Physiology**</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

14 or 15 | 9 | 18 or 19

* Near the end of the second semester a choice of one of the options and electives must be made for the Sophomore Year.

** Required in the Laboratory Animal Research Technology Option.

BIOLOGICAL RESEARCH TECHNOLOGY OPTION

This option offers a broad spectrum of biological specialties for students who are interested in research and desire positions in various types of biological testing or research laboratories.

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO — Social Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SC 104 General Microbiology</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SC 203 Biological Instrumentation</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Two Technical Electives*</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

10 | 11 | 14

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Class</th>
<th>Lab</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO — Social Sciences (2)</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>SC 206 Research Procedures</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CH 204 Biochemistry</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Technical Elective*</td>
<td>2</td>
<td>3 to 4</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

12 | 9 or 10 | 15

Total: 63 to 66 Credits**

* See elective sequences and Technical Electives for Bio. Research Option.

** Based on electives selected.
Environmental Protection Elective Sequence

This elective sequence is recommended for those students interested in employment with municipal, state, Federal, or private agencies concerned with the expanding fields of water, soil, food, or air pollution prevention and control.

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 240</td>
<td>Environment Analysis I</td>
<td>(2-3)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>SC 223</td>
<td>Principles of Ecology</td>
<td>(2-3)</td>
<td>3 cr.</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 241</td>
<td>Environmental Analysis II</td>
<td>(2-3)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>SC 243</td>
<td>Environmental Problems**</td>
<td>(1-4)</td>
<td>2 cr.</td>
</tr>
</tbody>
</table>

* Technical Courses other than those listed may be selected with permission. A minimum class size of 15 students is necessary for a technical elective to be offered.

Third Semester Technical Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 201</td>
<td>Medical Entomology</td>
<td>(2-2)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>SC 202</td>
<td>Microtechnique</td>
<td>(1-4)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>SC 115</td>
<td>Plant Physiology</td>
<td>(2-2)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>PH 131</td>
<td>College Physics I</td>
<td>(3-2)</td>
<td>4 cr.</td>
</tr>
<tr>
<td>SC 204</td>
<td>Entomology II</td>
<td>(2-2)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>SC 212</td>
<td>Weeds and their Control</td>
<td>(2-2)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>SC 241</td>
<td>Environmental Protection I</td>
<td>(3-0)</td>
<td>3 cr.</td>
</tr>
</tbody>
</table>

Fourth Semester Technical Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 205</td>
<td>Mycology and Plant Pathology</td>
<td>(2-3)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>PH 132</td>
<td>College Physics II</td>
<td>(3-2)</td>
<td>4 cr.</td>
</tr>
<tr>
<td>SC 108</td>
<td>Entomology I</td>
<td>(2-2)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>SC 105</td>
<td>Anatomy and Physiology</td>
<td>(3-2)</td>
<td>4 cr.</td>
</tr>
<tr>
<td>SC 221</td>
<td>Introduction to Oceanography</td>
<td>(2-2)</td>
<td>3 cr.</td>
</tr>
<tr>
<td>SC 242</td>
<td>Environmental Protection II</td>
<td>(3-0)</td>
<td>3 cr.</td>
</tr>
</tbody>
</table>

** May be taken as an additional elective course.

OCEANOLOGY OPTION

This elective sequence is recommended for those students interested in employment in the expanding marine industrial, educational, and research enterprises.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SC 104</td>
<td>General Microbiology</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SC 223</td>
<td>Principles of Ecology</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SC 234</td>
<td>Marine Botany</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SC 236</td>
<td>Marine Zoology</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>Lab.</td>
</tr>
<tr>
<td>11</td>
<td>9</td>
</tr>
</tbody>
</table>

51
PEST CONTROL TECHNOLOGY OPTION

This option is offered for those students interested in pest prevention and control and who prefer positions in horticultural, agricultural or structural pest control research or services as indicated under Typical Employment Opportunities.

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Lab.</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SC 201 Medical Entomology</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SC 223 Principles of Ecology</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SC 212 Weeds and their Control</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>OH 231 Turf Management or Technical Elective</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>9</td>
</tr>
</tbody>
</table>

Fourth Semester

|                                | Hours per Week | Credit Hours |
|                                | Class          | Lab.         |                |
|                                |                |              |                |
| SO — Social Sciences (2)       | 6              | 0            | 6              |
| CH 204 Biochemistry            | 3              | 3            | 4              |
| SC 221 Introduction to Oceanography | 2          | 2            | 3              |
| SC 203 Biological Instrumentation | 1            | 3            | 2              |
|                                | 12             | 8            | 15             |

Total: 64 or 65 credits

LABORATORY ANIMAL RESEARCH TECHNOLOGY OPTION

This option is offered for those students interested in the breeding, care and handling of laboratory animals used in research, in medical, pharmaceutical, hospital and various other types of biological laboratories.

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Lab.</td>
</tr>
<tr>
<td>SO — Social Sciences (2)</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>SC 210 Medical Microbiology</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SC 246 Animal Histology</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SC 203 Biological Instrumentation</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>SC 228 Care and Management of Lab Animals I</td>
<td>2</td>
<td>4*</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>12</td>
</tr>
</tbody>
</table>

Fourth Semester

|                                | Hours per Week | Credit Hours |
|                                | Class          | Lab.         |                |
| SO — Social Science            | 3              | 0            | 3              |
| CH 204 Biochemistry            | 3              | 3            | 4              |
| SC 245 Principles of Genetics  | 2              | 3            | 3              |
| SC 228 Care and Management of Lab Animals II | 2          | 4*           | 3              |
| SC 225 Parasitology            | 2              | 3            | 3              |
|                                | 12             | 13           | 16             |

Total: 58 credits

* Laboratory Clinics held at Nassau Medical Center.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 205</td>
<td>Mycology and Plant Pathology</td>
<td>3</td>
</tr>
<tr>
<td>SC 238</td>
<td>Industrial Pest Control</td>
<td>3</td>
</tr>
<tr>
<td>SC 208</td>
<td>Pesticides and Field Research Procedures</td>
<td>4</td>
</tr>
</tbody>
</table>

Total: 65 credits
BUSINESS ADMINISTRATION

PROFESSOR RICHARD J. PFEIFFER, Chairman

This program is designed to prepare men and women for positions of responsibility in industry and business. The first-year core curriculum provides the student with a basic background which is essential to the development of the second-year concentration in one of three options—Accounting, Management, or Marketing.

In addition to the business courses of instruction, the students' collegiate program is broadened through a required sequence of study in English, mathematics or science, and the social sciences.

Graduates find that the broad background of this curriculum provides excellent preparation for the small business enterprise. Graduates entering large corporations secure initial employment in such areas as production, personnel, auditing accounting, selling, purchasing, and advertising. Many of our graduates have taken the opportunity of transferring to four-year colleges to complete the baccalaureate degree in business administration.

Typical Employment Opportunities

Salesman ........................................ Junior Accountant
Expediter ........................................ Purchasing
Merchandising ................................. Administrative Assistant
Cost Accounting .............................. Management Trainee
Personnel Assistant .......................... Insurance
Claims Approver ............................... Tax Auditor
Inventory Control ............................ Business Office Representative
Quality Analyst ............................... Tax Examiner

BUSINESS ADMINISTRATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 101</td>
<td>Accounting I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BA 111</td>
<td>Business Organization &amp; Management</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SO 219</td>
<td>General Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SO 206</td>
<td>Economics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature**</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MA 105</td>
<td>College Algebra or MA 100 Mathematics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BA 102</td>
<td>Accounting II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BA 131</td>
<td>Marketing I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BA 162</td>
<td>Business Communications</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hours</th>
<th>per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>2</td>
<td>16</td>
</tr>
</tbody>
</table>
### Suggested Electives for Business Administration

(Select Four Courses)

#### ACCOUNTING OPTION

The accounting option features studies in cost accounting, office management, and business problems of the accounting profession.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 161</td>
<td>Business Law I</td>
</tr>
<tr>
<td>BA 201</td>
<td>Intermediate Accounting I</td>
</tr>
<tr>
<td>BA 202</td>
<td>Intermediate Accounting II</td>
</tr>
<tr>
<td>BA 203</td>
<td>Cost Accounting</td>
</tr>
<tr>
<td>BA 212</td>
<td>Production Management</td>
</tr>
<tr>
<td>BA 215</td>
<td>Office Management</td>
</tr>
<tr>
<td>BA 251</td>
<td>Investments</td>
</tr>
<tr>
<td>BA 261</td>
<td>Business Law II</td>
</tr>
</tbody>
</table>

#### MANAGEMENT OPTION

Managerial aspects of business and industry are covered in courses including production management, personnel management, and problems in management.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 150</td>
<td>Principles of Insurance</td>
</tr>
<tr>
<td>BA 161</td>
<td>Business Law I</td>
</tr>
<tr>
<td>BA 212</td>
<td>Production Management</td>
</tr>
<tr>
<td>BA 215</td>
<td>Office Management</td>
</tr>
<tr>
<td>BA 216</td>
<td>Personnel Management</td>
</tr>
<tr>
<td>BA 238</td>
<td>Industrial Purchasing</td>
</tr>
<tr>
<td>BA 251</td>
<td>Investments</td>
</tr>
<tr>
<td>BA 261</td>
<td>Business Law II</td>
</tr>
</tbody>
</table>

#### MARKETING OPTION

The marketing functions of industry pertaining to purchasing, selling, advertising, merchandising and sales promotion are studied.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 135</td>
<td>Salesmanship</td>
</tr>
<tr>
<td>BA 150</td>
<td>Principles of Insurance</td>
</tr>
<tr>
<td>BA 161</td>
<td>Business Law I</td>
</tr>
<tr>
<td>BA 216</td>
<td>Personnel Management</td>
</tr>
<tr>
<td>BA 231</td>
<td>Marketing II</td>
</tr>
<tr>
<td>BA 234</td>
<td>Advertising Principles</td>
</tr>
<tr>
<td>BA 238</td>
<td>Industrial Purchasing</td>
</tr>
<tr>
<td>BA 240</td>
<td>Consumer Behavior</td>
</tr>
<tr>
<td>BA 261</td>
<td>Business Law II</td>
</tr>
</tbody>
</table>
CHEMISTRY

DR. JOSEPH A. URSINO, Chairman

The Chemistry Department offers supportive courses for students in the following areas:

- Agriculture
- Biological Technology
- Dental Hygiene
- Developmental Studies
- Engineering Science
- Food Technology
- Graphic Arts
- Liberal Arts
- Medical Laboratory
- Mortuary Science
- Nursing
- Photographic Technology
- Police Science

Students with career objectives in chemistry, medicine, dentistry, pharmacy, scientific research, forensic science, chemical engineering, and the teaching of chemistry can take a chemistry emphasis program under the Engineering Science or Liberal Arts program. The chemistry studies include a year of General Chemistry and a year of Organic Chemistry.

CIVIL TECHNOLOGY—Highway

(An ECPD approved Engineering Technology Curriculum)

PROFESSOR NICHOLAS ROMANELI, Chairman

The construction industry is the largest single industry in America today. The growth of our country is dependent upon the construction of roads and bridges, industrial plants, water systems, homes of our people, and all other structures which house the activities of our civilization. An army of engineers, architects, engineering technicians, and skilled mechanics is busy changing our cities, highways, and bridges. It is moving mountains, creating lakes, and bridging wide stretches of water. The courses in the Civil Technology curriculum are arranged to give a basic education in the fundamentals of soils and foundations, concrete and steel construction, structural design, surveying, mapping, and highway engineering. Graduates are engineering technicians prepared to assist Civil Engineers either in field or office work. State, county, and municipal departments of public works, as well as private engineers and contractors, offer employment to our graduates.
## Typical Employment Opportunities

- Structural Design Assistant
- Contractor
- Construction Superintendent
- Surveyor
- Engineering Aide
- Structural Draftsman
- Highway Draftsman
- Topographer
- Estimator
- Materials Tester
- Inspector
- Field Clerk

## CIVIL TECHNOLOGY—HIGHWAY

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Subject</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 103</td>
<td>Surveying I</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CT 111</td>
<td>Graphics</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>CT 112</td>
<td>Construction Materials</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MA 124</td>
<td>Mathematics</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PH 131</td>
<td>Physics</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>11</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Subject</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 104</td>
<td>Structural Drafting</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CT 106</td>
<td>Statics</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CT 107</td>
<td>Surveying II</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MA 125</td>
<td>Mathematics</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>8</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Subject</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 203</td>
<td>Highway Design I</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CT 224</td>
<td>Elementary Photogrammetry</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>CT 206</td>
<td>Strength of Materials</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>CT 214</td>
<td>Construction Methods (Civil)</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MA 126</td>
<td>Mathematics</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>PH 132</td>
<td>Physics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>11</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Subject</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 209</td>
<td>Highway Design II</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CT 219</td>
<td>Hydraulics of Drainage</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>CT 220</td>
<td>Elements of Structures (Civil)</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CT 221</td>
<td>Pavement Design</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>5</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits Required: **72**
CONSTRUCTION TECHNOLOGY—
ARCHITECTURAL TECHNOLOGY
(An ECPD approved Engineering Technology Curriculum)

PROFESSOR NICHOLAS ROMANELI, Chairman

Civilization leaves its mark of progress in the architecture of its buildings. Our modern civilization is so vast and is changing so rapidly that construction is one of the great accomplishments of our times. The imagination of the architect working with the ever increasing structural knowledge and ingenuity of the engineer has produced a multitude of the world's most unique buildings. The vast industry of building materials supplies the designer with a nearly unlimited variety of materials and structural assemblies.

The courses in the building construction curriculum are designed to give a basic understanding of building technology. A solid foundation in mathematics, together with knowledge of materials and methods of construction, are correlated with technical studies in planning, designing, surveying, drafting, estimating, inspecting.

Graduates are engineering technicians prepared for many types of supervisory and technical employment in the building industry. The variety of employment opportunities enables our graduates to select positions that favor individual interest and ability.
Typical Employment Opportunities

Architectural Designer
Architectural Draftsman
Structural Detailer
Construction Superintendent
Contractor
Building Inspector
Assistant Surveyor
Engineering Aide
Estimator
Expediter
Materials Salesman
Materials Tester

CONSTRUCTION TECHNOLOGY—ARCHITECTURAL TECHNOLOGY

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 103</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CT 111</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>CT 112</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>EN 100</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PE</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MA 124</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PH 131</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 104</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CT 106</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CT 107</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 101</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PE</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MA 125</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SO</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 201</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CT 208</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CT 206</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>CT 218</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>MA 126</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SO</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Class</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT 207</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CT 202</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>CT 223</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>CT 222</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PH 132</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>SO</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits Required: 72
COMMUNITY SERVICE ASSISTANT

PROFESSOR BERNARD SCHWARTZBERG, Chairman

Designed to provide the fundamental knowledge and skills essential for understanding human behavior, human problems, and human relationships, the Community Service Assistant curriculum prepares students for meaningful work with people in community, private, or public social welfare agencies.

The nature and needs of the individual are explored from various points of view of psychological forces and from those of the society in which he lives.

In their second year, students have the opportunity of gaining additional insights through field placement, which integrates academic understanding with agency experience.

For all field experiences, student dress must conform with field agency protocol. Students are responsible for providing their own transportation to field agencies.

Typical Employment Opportunities

Case Work Aide
Medical Social Work Assistant
Medicaid Assistant
Welfare Research Assistant

Neighborhood Worker
Community Action Aide
Statistical Assistant
Vocational Rehabilitation
Counseling Aide

COMMUNITY SERVICE ASSISTANT

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 101 Foundations of Social Work</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN 114 Speech</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SO 219 Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SO 222 Sociology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 102 Community Service Agencies (2)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>CS 103 Intro. to Social Work Processes</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN 101 Intro. to Literature</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MA 100 Mathematics or</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MA 105 College Algebra (1)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SC 107 Biology or</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SC 119 Biology (1)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SS 101 Typewriting (3)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CS 212 Field Experience (10)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13-14</strong></td>
<td><strong>15 or 18</strong></td>
</tr>
</tbody>
</table>

61
Explanatory Notes for Community Service Assistant Program

(1) Must meet requirements of department offering course, namely Science—2 high school units, Biology required, Chemistry recommended, Math—2½ units, including intermediate Algebra.

(2) CS 102 may be waived for those students with considerable paid employment in the field, or now working in paid positions in related agencies. If so, authorized elective, including CS 212, may be chosen (See No. 4).

(3) SS 101 is required unless student has satisfactorily completed equivalent course.

(4) Electives with three hours of lecture and no lab hours for 3 credits per semester may be selected as alternate with prior permission of chairman of department from additional courses in the Community Service Assistant Department, from selected courses previously given in Pre-Health and Social Sciences Division, Liberal Arts, Spanish or Nursery Education. The CS 212 course, with 1 hour of lecture and 6 hours of lab for 4 credits per semester may also be selected.

(5) Students with considerable paid employment in the field or now working in paid positions in related agencies may be permitted to elect CS 201 and CS 202 for 1 hour class and 3 hours lab experience for 2 credits each, and then substitute authorized elective course, with prior permission of chairman of department (See No. 4).
DATA PROCESSING

DR. HAROLD JOSEPH HIGHLAND, Chairman

High speed computers and ancillary data processing equipment are a necessary integral part of the business, scientific, industrial, educational and governmental facilities of the nation. Data processing is a growing professional field with rapidly expanding opportunities for employment.

This curriculum concentrates on the organization and interaction of the computer complex as an information processing system. The course is designed to provide the student with: an understanding of the principles and methods of data handling; competence in the application of computers and data processing equipment in different environments; experience in the use of both business and scientific programming languages, and an overview of business organization and management.

Work with a modern computer, auxiliary magnetic tape, disc and card processing equipment is included, as well as systems design, data processing techniques and programming languages.

Typical Employment Opportunities

Business Programming Trainee  Junior Scientific Programmer
Program Coder                  Systems Aide
Digital Computer Console      Computer-Peripheral-Equipment
Operator                      Operator
Computer Librarian            Statistical and Tabulating Aide
Junior Documentation Writer

DATA PROCESSING

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Lab.</td>
</tr>
<tr>
<td>DP 101 Basic Computer Concepts</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>DP 104 Algorithmic Processes I</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MA — Mathematics*</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>4</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th></th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Lab.</td>
</tr>
<tr>
<td>DP 116 Machine and Assembly Language Programming</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>DP 106 Algorithmic Processes II</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>EN 101 Introduction to Literature</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SO 206 Economics</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MA — Mathematics*</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>4</td>
</tr>
</tbody>
</table>
Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP 206</td>
<td>Control and Service Programming Systems</td>
<td>2</td>
</tr>
<tr>
<td>DP 240</td>
<td>Algebraic Language Programming &amp; Statistics</td>
<td>3</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>3</td>
</tr>
<tr>
<td>DP</td>
<td>Data Processing elective (Select 1 between</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DP 220 or DP 226)</td>
<td></td>
</tr>
<tr>
<td>Elective**</td>
<td></td>
<td>3-4</td>
</tr>
</tbody>
</table>

| Total Credits | 14-15 |

Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP 204</td>
<td>System Analysis and Design</td>
<td>2</td>
</tr>
<tr>
<td>DP 230</td>
<td>System Simulation</td>
<td>3</td>
</tr>
<tr>
<td>DP</td>
<td>Data Processing elective (Select 1 between</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DP 225 or DP 229)</td>
<td></td>
</tr>
<tr>
<td>Elective (2)**</td>
<td></td>
<td>6-7</td>
</tr>
</tbody>
</table>

| Total Credits | 14-15 |

Total Credits: 65-68

* Recognizing the varying mathematics background of the entering student, an advisor will recommend the appropriate one-year of creditable mathematics which the student should take. Some of the acceptable combinations are: MA 100-MA 110, MA 105-MA 106, MA 135, MA 137.

** A student electing to take DP 220 must take DP 108 as a co-requisite. A student taking DP 226 should take MA 135, PH 131 or a course recommended by his advisor.

*** A student taking DP 225 must take DP 109 as a co-requisite, and an elective from business, social science, mathematics or science. A student taking DP 229 may select an elective from mathematics or science or one recommended by his advisor and an additional one in social science. Note: MA 135 is a prerequisite for DP 229.
DENTAL HYGIENE

DR. KENDALL P. THOMAS, Chairman

The medical and dental professions have long appreciated the connection between oral hygiene and general health, and the general public is now beginning to recognize this relationship. This situation creates a need not only for more dentists but for a proportionately greater number of dental hygienists. A dental hygienist performs oral prophylaxis, including the taking and developing of dental roentgenograms, and instructs patients in the proper care of the mouth.

This curriculum is designed to provide education in theory and practice requisite for the licensed profession of dental hygiene. The first year's work is concerned largely with general subjects and basic sciences. Students also work with dental materials and practice oral prophylaxis on manikins. The second year's work is concerned with specialized subject matter and practical training. Students gain experience by assisting dentists, performing oral prophylaxis at the College and hospitals, as well as the taking and processing of dental x-rays.

Required courses prepare students for private practice under the supervision of a registered dentist. Positions may occur in private dental offices, in public clinics, or in schools or other institutions.

Graduates of the College with a major in Dental Hygiene are eligible for participation in the various State Board Examinations in Dental Hygiene as well as the national Board Examination in Dental Hygiene.

For all field experiences, student dress must conform with field agency protocol.

A grade of "C" or better must be maintained in all clinical and clinically related courses; all prerequisites for these courses, as listed in the catalogue require a grade of "C" or better.

Typical Employment Opportunities

Private Dental Office  Clinic Supervisor
Public Health Clinic  Research Assistant
Hospital  Dental Assistant
Industrial or Private Clinic  Dental X-Ray Technician

DENTAL HYGIENE

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 101 Dental Anatomy</td>
<td>3 Class 3 Lab.</td>
<td>4</td>
</tr>
<tr>
<td>CH 106 Introduction to Biochemistry</td>
<td>3 Class 2 Lab.</td>
<td>4</td>
</tr>
<tr>
<td>SC 105 Anatomy and Physiology</td>
<td>3 Class 2 Lab.</td>
<td>4</td>
</tr>
<tr>
<td>DH 108 Clinical Dental Hygiene I</td>
<td>2 Class 4 Lab.</td>
<td>3</td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0 Class 2 Lab.</td>
<td>1</td>
</tr>
</tbody>
</table>

14 13 19
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 109</td>
<td>Histology</td>
<td>2</td>
</tr>
<tr>
<td>SC 110</td>
<td>Medical Microbiology</td>
<td>2</td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>DH 105</td>
<td>Dental Roentgenology</td>
<td>2</td>
</tr>
<tr>
<td>DH 109</td>
<td>Clinical Dental Hygiene II</td>
<td>2</td>
</tr>
<tr>
<td>DH 209</td>
<td>Pharmacology</td>
<td>1</td>
</tr>
<tr>
<td>DH 210</td>
<td>Periodontology I</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>DH 110</td>
<td>Dental Office Procedures</td>
<td>2</td>
</tr>
<tr>
<td>DH 201</td>
<td>Clinical Dental Hygiene III +</td>
<td>1</td>
</tr>
<tr>
<td>DH 205</td>
<td>Pathology</td>
<td>2</td>
</tr>
<tr>
<td>FT 211</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>SO 219</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EN 114</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>DH 211</td>
<td>Periodontology II</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>DH 206</td>
<td>Clinical Dental Hygiene IV +</td>
<td>1</td>
</tr>
<tr>
<td>DH 208</td>
<td>Public Health</td>
<td>2</td>
</tr>
<tr>
<td>DH 220</td>
<td>Dental Specialties</td>
<td>3</td>
</tr>
<tr>
<td>SO 222</td>
<td>Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
</tr>
</tbody>
</table>

+ Students are required to provide their own transportation to off campus field experiences.

Total Credits: 70
Electronics offers one of the largest and most varied areas in our modern industrial, economic, and social organization, and as such demands men with a high degree of proficiency in the technical subjects of their field together with supplemental knowledge in allied fields.

The curriculum of Electronics prepares engineering technicians for industrial positions in fields of communication electronics, and industrial electronics, digital electronics, and electronic development.

The increasing application of electrical and electric equipment makes it difficult for industry to secure qualified technical specialists to develop, install, operate, and maintain that equipment. Students in Electronics receive instruction to meet industrial needs.

Typical Employment Opportunities

Avionic Technician  Environmental Test Technician
Communication Technician  Missile Electronics Technician
Computer Technician  Nucleonic Technician
Customer Engineer  Radar Technician
Electronic Draftsman  Research Laboratory Technician
Electronic Technician  Technical Writer
Engineering Aide  Test Technician

ELECTRICAL TECHNOLOGY—ELECTRONICS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 100</td>
<td>Introduction to Electronics</td>
<td>1 2 2</td>
<td>4 3 5</td>
</tr>
<tr>
<td>ET 101</td>
<td>Electrical Circuits I</td>
<td>4 3 5</td>
<td>3 3 4</td>
</tr>
<tr>
<td>ET 116</td>
<td>Electronic Drafting</td>
<td>0 2 1</td>
<td>3 0 3</td>
</tr>
<tr>
<td>MA 124</td>
<td>Mathematics</td>
<td>3 0 3</td>
<td>0 2 1</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3 0 3</td>
<td>0 2 1</td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>0 2 1</td>
<td>0 2 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11 9 15</td>
<td>13 8 16</td>
</tr>
</tbody>
</table>

Professor E. Norman Lurch, Chairman

(An ECPD approved Engineering Technology Curriculum)
### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 232</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ET 233</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MA 126</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PH 131</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SO —</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 234 Electronics IV</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>ET 235 Electronics V</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>ET 236 Systems Construction &amp; Analysis</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PH 132 Physics</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits Required:</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

**Total Credits Required: 67**
Purpose

The purpose of the curriculum is to prepare students in the basic areas of science, mathematics, and humanities, qualifying them for further study as third-year students at a senior college where specialization in several fields of engineering, applied mathematics, physics, chemistry and pre-professional studies may be undertaken.

Typical Employment Opportunities

Graduates of this program ordinarily pursue advanced studies. Where circumstances prevent a graduate from continuing his studies, he is qualified for a position as an engineering aide, research assistant, laboratory technician, or science assistant.

Transfer

The College has been transferring our students successfully to State and private colleges and universities throughout the country where they have continued their studies as third-year students. Each individual should discuss their plans for transfer with the Department Chairman.

ENGINEERING SCIENCE

Common First Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Lab/Rec</td>
</tr>
<tr>
<td>CH 115 General Chemistry</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MA 150 Analytic Geometry and Calculus</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>PH 151 University Physics</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Lab/Rec</td>
</tr>
<tr>
<td>CH 116 General Chemistry</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MA 151 Analytic Geometry and Calculus</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>PH 152 University Physics</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>EN 101 Introduction to Literature</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ES 214* Introduction to Computers</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>7</td>
</tr>
</tbody>
</table>
Second Year

The second year schedule provides electives which make it possible for the student to study in his area of interest.

### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 201</td>
<td>Statics**</td>
<td>3</td>
</tr>
<tr>
<td>—</td>
<td>Engineering or Science Elective***</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td>3</td>
</tr>
<tr>
<td>MA 152</td>
<td>Analytic Geometry and Calculus</td>
<td>4</td>
</tr>
<tr>
<td>PH 153</td>
<td>University Physics</td>
<td>4</td>
</tr>
<tr>
<td>PH 161</td>
<td>Physics Laboratory</td>
<td>0</td>
</tr>
</tbody>
</table>

Total Credits: 14-15

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 202</td>
<td>Dynamics**</td>
<td>3</td>
</tr>
<tr>
<td>—</td>
<td>Engineering or Science Elective***</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td>3</td>
</tr>
<tr>
<td>MA 153</td>
<td>Linear Algebra and Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>PH 162</td>
<td>Physics Laboratory</td>
<td>0</td>
</tr>
<tr>
<td>SO or EN</td>
<td>Social Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 16-17

Total Credits Required: 72

* Must have 2.0 or Department permission.

** Required only for those students electing engineering or physics. Other students may elect courses in chemistry or biology in conference with the Chairman of the Department.

*** Electives, listed below, will be selected in conference with Chairman of the Department. Pre-requisite for electives must be minimum grade "C."

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 206</td>
<td>Engineering Circuit Analysis I</td>
</tr>
<tr>
<td>ES 207</td>
<td>Engineering Circuit Analysis II</td>
</tr>
<tr>
<td>ES 208</td>
<td>Engineering Circuit Analysis Laboratory</td>
</tr>
<tr>
<td>ES 211</td>
<td>Engineering Circuit Analysis (Non-EE)</td>
</tr>
<tr>
<td>ES 212</td>
<td>Engineering Circuit Analysis Laboratory (Non-EE)</td>
</tr>
<tr>
<td>ES 213</td>
<td>Mechanics of Deformable Bodies</td>
</tr>
<tr>
<td>CH 215</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>CH 216</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>CH 256</td>
<td>Analytical Chemistry</td>
</tr>
<tr>
<td>SC 133</td>
<td>Biology I</td>
</tr>
<tr>
<td>SC 134</td>
<td>Biology II</td>
</tr>
<tr>
<td>PH 154</td>
<td>Modern Physics</td>
</tr>
</tbody>
</table>

### ENGLISH AND HUMANITIES

**Dr. Edwin Ore, Chairman**

Courses in English and the Humanities are designed to aid students: to achieve greater efficiency in communication; to increase understanding of the human experience as it is examined and expressed in philosophy and the creative arts.
FOOD PROCESSING TECHNOLOGY

PROFESSOR CLARENCE L. STAHLMAN, Chairman

Over two hundred million people in the United States today must be assured of an adequate, satisfying food supply. More food as well as more food research and new food ideas constitute a never ending search.

More than fifty per cent of the food items presently on our grocery shelves were not there ten years ago. There will be greater changes in the future. Freeze-dried, radiated, nitrogen frozen, and synthetic foods are now replacing many forms we currently know and accept. The field of foods is one of the most vital, most interesting, and well paying career areas open to young men and women. Challenging opportunities exist in a variety of capacities: production, quality control of products, merchandising and sales, research and development of foods and services.

Students of Food Processing Technology study and practice in clean, modern laboratories which are under federal, state and local health jurisdiction and control. All students are expected to comply with these regulations.

Typical Employment Opportunities

Food Broker
Food Buyer
Food Plant Quality Control
Federal-State Inspection of Food Products
Private Food Products Inspection
Inspectors, Health & Environment Departments
Food Research and Development
Food Packaging
Food Testing and Analysis
Merchandising & Distribution of Foods

Fluid Milk Processing
Frozen Food Sales and Supervision
Dairy Plant Quality Control
Food Advertising
Prepared and Pre-Cooked
Convenience Food Production
Food Plant Management
Food Equipment Sales
Sanitation Specialist
Food Condiment Sales
Institutional Frozen Foods Sales
Food Management

FOOD PROCESSING TECHNOLOGY

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 101 Food Processing</td>
<td>2 3 3</td>
<td>3</td>
</tr>
<tr>
<td>BA 111 Business Organization &amp; Management</td>
<td>3 0 3</td>
<td>3</td>
</tr>
<tr>
<td>CH 104 Chemistry</td>
<td>3 2 4</td>
<td>4</td>
</tr>
<tr>
<td>EN 100 English</td>
<td>3 0 3</td>
<td>3</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0 2 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>11 7 14</td>
<td>14</td>
</tr>
</tbody>
</table>
Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 102</td>
<td>Fundamentals of Food Preparation</td>
<td>2</td>
</tr>
<tr>
<td>FT 107</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CH 105</td>
<td>Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>SC 104</td>
<td>General Microbiology</td>
<td>2</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>10</td>
<td>17</td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 210</td>
<td>Dairy Manufacturing</td>
<td>2</td>
</tr>
<tr>
<td>FT 202</td>
<td>Food Processing Equipment</td>
<td>2</td>
</tr>
<tr>
<td>FT 203</td>
<td>Precooked Frozen Foods</td>
<td>2</td>
</tr>
<tr>
<td>SC 111</td>
<td>Microbiology of Foods</td>
<td>3</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>11</td>
<td>15</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 204</td>
<td>Commercial Processing of Convenience Foods</td>
<td>2</td>
</tr>
<tr>
<td>FT 205</td>
<td>Dairy &amp; Fermented Foods</td>
<td>2</td>
</tr>
<tr>
<td>FT 206</td>
<td>Quality Control Foods</td>
<td>6</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Credits Required: 61

FOREIGN LANGUAGES

Professor Leonard Isemonger, Acting Coordinator

The Department of Foreign Languages offers instruction in beginning, intermediate and advanced French, German and Spanish.

The language curriculum is designed to enable a student to overcome a linguistic obstacle and instill in him an appreciation for the cosmopolitan spirit. The acquisition of a second language is vital for an education in the liberal arts as well as a highly useful tool in any profession involving contact with other individuals.

A student entering the liberal arts curriculum without a foreign language must select a foreign language and take twelve credits in that language. A student entering with two or more years of high school instruction in a foreign language may elect to continue with that language or may begin another language. If he chooses to continue he will be placed in the appropriate level of language instruction based on the results of a placement examination or by a personal interview with the language department chairman. The student who is continuing must take a minimum of six credits in that language. If a student chooses to begin a new language, he must take twelve credits in that language. A student who is not in the Liberal Arts curriculum and who wishes to take a foreign language must take a minimum of six credits in the foreign language.
GRAPHIC ARTS AND ADVERTISING TECHNOLOGY

PROFESSOR RICHARD M. SCHLEMMER, Chairman

The Graphic Arts curriculum is primarily designed to prepare graduates for mid-management positions in the industry. Students receive instruction in all basic technical areas to prepare them for such responsibilities. This background education includes printing processes, copy preparation, typesetting, paste-up, photography, platemaking, color technology, printing and related considerations of paper and ink. Relationships between the techniques of graphic arts and the requirements of advertising are continually explored throughout the course.

The broad program of lectures and laboratory experiences is supplemented by field trips to newspapers and commercial printing plants. Students are also given opportunities to demonstrate special aptitudes in work projects or to follow individual interests in supplemental research assignments.

Typical Employment Opportunities

- Advertising Manager
- Account Executive
- Copywriter
- Advertising Artist
- Production Assistant
- Assistant Advertising Manager
- Space Salesman
- Merchandising Manager
- Media Buyer
- Art Director
- Printing Buyer
- Typographer
- Printing Estimator
- Printing Salesman
- Office Manager

---

GRAPHIC ARTS AND ADVERTISING TECHNOLOGY

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA 100 Graphic Arts I</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GA 101 Visual Fundamentals</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BA 111 Business Organization</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PH 112 Physical Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>5</strong></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA 102 Typography</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GA 103 Layout and Printing Design</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BA 234 Advertising Principles</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EN 101 Introduction to Literature</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CH 103 Chemistry</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
<td><strong>6</strong></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

---

73
### Third Semester (Advertising)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 201</td>
<td>Copywriting</td>
<td>3</td>
</tr>
<tr>
<td>SO 206</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>SO 219</td>
<td>Psychology</td>
<td>2</td>
</tr>
<tr>
<td>GA —</td>
<td>Graphic Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>BA 151</td>
<td>Business Math</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA 200</td>
<td>Graphic Arts II</td>
<td>2</td>
</tr>
<tr>
<td>AA 224</td>
<td>Advertising Procedures</td>
<td>2</td>
</tr>
<tr>
<td>GA 203</td>
<td>Seminar</td>
<td>3</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science Elective</td>
<td>2</td>
</tr>
<tr>
<td>GA —</td>
<td>Graphic Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>BA 131</td>
<td>Marketing I</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

### Fourth Semester (Advertising)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA 200</td>
<td>Graphic Arts II</td>
<td>2</td>
</tr>
<tr>
<td>AA 224</td>
<td>Advertising Procedures</td>
<td>2</td>
</tr>
<tr>
<td>GA 203</td>
<td>Seminar</td>
<td>3</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science Elective</td>
<td>2</td>
</tr>
<tr>
<td>GA —</td>
<td>Graphic Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

### Total Credits: 63

### Third Semester (Graphic Arts)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA 200</td>
<td>Graphic Arts II</td>
<td>2</td>
</tr>
<tr>
<td>SO 206</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>SO 219</td>
<td>Psychology</td>
<td>2</td>
</tr>
<tr>
<td>GA —</td>
<td>Graphic Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>BA 151</td>
<td>Business Math</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA 204</td>
<td>Production Management</td>
<td>3</td>
</tr>
<tr>
<td>GA 201</td>
<td>Graphic Arts Production</td>
<td>2</td>
</tr>
<tr>
<td>GA 202</td>
<td>Printing Estimation</td>
<td>3</td>
</tr>
<tr>
<td>GA 203</td>
<td>Seminar</td>
<td>3</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science Elective</td>
<td>2</td>
</tr>
<tr>
<td>GA —</td>
<td>Graphic Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

### Total Credits: 63

### Students take the same courses in the first year, and select either Graphic Arts or Advertising courses for the second year.

### Electives—Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 105</td>
<td>Design Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>AA 211</td>
<td>Photo Retouching</td>
<td>1</td>
</tr>
<tr>
<td>BA 260</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>GA 302</td>
<td>Color Reproduction</td>
<td>2</td>
</tr>
<tr>
<td>SS 101</td>
<td>Typewriting</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

### Electives—Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 106</td>
<td>Figure Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>AA 209</td>
<td>Graphic Design</td>
<td>2</td>
</tr>
<tr>
<td>BA 135</td>
<td>Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>GA 301</td>
<td>Traffic Management</td>
<td>3</td>
</tr>
<tr>
<td>GA 302</td>
<td>Color Reproduction</td>
<td>3</td>
</tr>
<tr>
<td>GA 303</td>
<td>Photo Offset Printing</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

### Total Credits: 63
LIBERAL ARTS

DR. WILLIAM J. REILLY, Chairman

This two-year program leads to the Associate in arts degree and is designed to offer the first two years of college liberal arts and sciences. After successfully completing the program, students may transfer to other colleges for the final two years of study for the baccalaureate degree, or they may seek employment in positions requiring two years of college.

All students will take courses in foreign languages, the humanities, mathematics, physical education, science, and the social sciences. Although a student will have opportunity to elect courses, the selection of an area of specialization will not be made until the third year. A variety of independent study opportunities will be available to students whose academic achievement is noteworthy.

LIBERAL ARTS AND SCIENCES

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 100 English Composition</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SO 214 History of Western Civilization</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MA — Math.*</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SC 133 Gen. Bio. or CH 113 Chem. or PH 131 Physics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ML — Modern Language**</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>**</td>
<td>15</td>
<td>5</td>
</tr>
</tbody>
</table>

Second Semester

| EN 101 Introduction to Literature | 3 | 0 | 3 |
| SC 134 Gen. Bio. or CH 114 Chem. or PH 132 Physics | 3 | 0 | 3 |
| MA — Mathematics | 3 | 3 | 4 |
| SO 215 History of Western Civilization | 3 | 0 | 3 |
| ML — Modern Language** | 3 | 0 | 3 |
| PE — Physical Education | 0 | 2 | 1 |
| ** | 15 | 5 | 17 |

Third Semester ***

| EN 104 English Literature | 3 | 0 | 3 |
| MA — Mathematics Elective | 3 | 0 | 3 |
| SC — Elective in Biology, Chemistry or Physics | 3 | 2 | 4 |
| SO — Social Science Elective | 3 | 0 | 3 |
| ML — Modern Language Elective | 3 | 0 | 3 |
| HU — Humanities Elective | 3 | 0 | 3 |
| FA — Fine Arts Elective | 3 | 0 | 3 |
| ** | 15 | 2 | 15–17 |
Fourth Semester***

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 105</td>
<td>English Literature</td>
<td>3</td>
</tr>
<tr>
<td>MA —</td>
<td>Mathematics Elective</td>
<td>3</td>
</tr>
<tr>
<td>SC —</td>
<td>Elective in Biology, Chemistry or Physics</td>
<td>3</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>ML —</td>
<td>Modern Language Elective</td>
<td>3</td>
</tr>
<tr>
<td>HU —</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>FA —</td>
<td>Fine Arts Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 15

* Each student will take MA 100, MA 105 or MA 135, depending on how many units of high school mathematics he has successfully completed.

** A student entering without a foreign language must select a language and take twelve credits in that language. A student entering with two or more years of high school instruction in a foreign language may elect to continue with that language or may begin another language. If he chooses to continue he will be placed in the appropriate level of language instruction based on results of a placement examination and must take a minimum of 6 credits in that language. If a student chooses to begin a new language, he must take 12 credits in that language.

*** In addition to EN 104-105, a second year student must select a sequence of credits in each of four of the other areas listed. Choice of areas of study will be made after consultation with an adviser.

A student, under advisement, may choose two sequences in one area. He will then choose credit sequences in only two of the other areas.

N.B. See curriculum sections for descriptions of liberal arts and sciences courses.

MATHEMATICS

PROFESSOR P. D. MAVROMMATIS, Chairman

The department offers a flexible program to provide for variations in students' needs and backgrounds. By this means any student may progress as far and as rapidly as possible. Engineering Technology students will ordinarily take the MA 124, MA 125, MA 126 sequence. Those Engineering Technology students who have successfully completed 12th year mathematics or its equivalent may, with the approval of the Department Chairman, begin the MA 135, MA 136, MA 137 sequence. Students completing MA 106 successfully may elect MA 135.

Agricultural and Horticultural students will ordinarily begin with MA 100 but, if their background warrants it, may start with MA 105.
MECHANICAL TECHNOLOGY
(An ECPD approved Engineering Technology Curriculum)

PROFESSOR FRANK PYNE, Chairman

The Mechanical Technology graduate is in increasing demand in today's world of sophisticated manufacturing methods and newly-developed metal alloys and plastics. These have come about through the advancement of our scientific frontiers.

The program of studies is designed around two strong cores: general studies, and technical specialties. General studies involve English, Social Sciences, Mathematics, and Physical Science. This gives the technician a strong background in the ability to solve problems in a literal and quantitative sense.

The technical specialty courses have been developed to utilize the general studies core in preparing the graduate to enter industry in the employment opportunities listed below. The knowledge and operations taught are based upon studies made of our graduates in industry, advice from our industrial consultants, and from criteria established by accrediting engineering societies.

Our well-equipped laboratories are used to provide an experimental and operative basis for understanding and verifying basic classroom instruction. Through this curriculum's technical societies, faculty counseling, and field trips, the student expands his knowledge and strengthens his understanding of the general and technical relationships in our changing society.

Typical Employment Opportunities

<table>
<thead>
<tr>
<th>Laboratory Technician</th>
<th>Product Designer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine Designer</td>
<td>Purchasing Agent</td>
</tr>
<tr>
<td>Metallurgical Technician</td>
<td>Quality Control Specialist</td>
</tr>
<tr>
<td>Methods Engineer</td>
<td>Technical Writer</td>
</tr>
<tr>
<td>Manufacturing Engineer</td>
<td>Tool Designer</td>
</tr>
<tr>
<td>Numerical Control Programmer</td>
<td></td>
</tr>
</tbody>
</table>

 Typical Employment Opportunities

Laboratory Technician | Product Designer
Machine Designer | Purchasing Agent
Metallurgical Technician | Quality Control Specialist
Methods Engineer | Technical Writer
Manufacturing Engineer | Tool Designer
Numerical Control Programmer

MECHANICAL TECHNOLOGY

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Lab.</td>
</tr>
<tr>
<td>MT 102 Graphics</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MT 107 Engineering</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>EN 100 Machine Tools</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>MA 121 Mathematics*</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PH 103 Physics*</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Semester</td>
<td>Course Code</td>
<td>Course Name</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Second Semester</td>
<td>MT 105</td>
<td>Mechanics</td>
</tr>
<tr>
<td></td>
<td>MT 166</td>
<td>Descriptive Geometry</td>
</tr>
<tr>
<td></td>
<td>MT 112</td>
<td>Machine Tools II</td>
</tr>
<tr>
<td></td>
<td>MA 124</td>
<td>Mathematics*</td>
</tr>
<tr>
<td></td>
<td>PH 104</td>
<td>Physics*</td>
</tr>
<tr>
<td></td>
<td>EN 101</td>
<td>Introduction to Literature</td>
</tr>
<tr>
<td></td>
<td>PE</td>
<td>Physical Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Semester</td>
<td>MT 201</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td></td>
<td>MT 202</td>
<td>Manufacturing Analysis</td>
</tr>
<tr>
<td></td>
<td>MT 206</td>
<td>Strength of Materials</td>
</tr>
<tr>
<td></td>
<td>MT 207</td>
<td>Tool Design</td>
</tr>
<tr>
<td></td>
<td>MA 125</td>
<td>Mathematics*</td>
</tr>
<tr>
<td></td>
<td>SO</td>
<td>Social Science*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Semester</td>
<td>MT 203</td>
<td>Metallurgy</td>
</tr>
<tr>
<td></td>
<td>MT 204</td>
<td>Production Control</td>
</tr>
<tr>
<td></td>
<td>MT 208</td>
<td>Machine and Product Design</td>
</tr>
<tr>
<td></td>
<td>MT</td>
<td>Technical Elective</td>
</tr>
<tr>
<td></td>
<td>SO</td>
<td>Social Science*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits Required: 69

* This program is career oriented and requires MA 121, 124, 125 and PH 103, 104 to qualify for the Associate in Applied Science degree.

Students with above minimal entrance requirements in mathematics and science and seeking transfer to the baccalaureate degree after graduating, should select MA 124, MA 125, MA 126 mathematics series and PH 131, PH 132 Physics series of courses.
This curriculum prepares students for employment in hospital laboratories, private and government clinical and industrial laboratories, blood banks, and medical research laboratories. Graduates of this program are qualified for immediate employment, may continue their training for A.S.C.P. registry, or may become Registered Associate Medical Technologists in the N.Y. State Registry of Medical Technologists. Many graduates transfer to four year colleges to matriculate for a Baccalaureate degree.

Typical Employment Opportunities

Hospital Medical Laboratory Technician
Doctor's Laboratory Technician
Clinical Laboratory Technician
Health Department Technician
Research Technician

MEDICAL LABORATORY TECHNOLOGY

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 137</td>
<td>Zoology</td>
<td>3</td>
<td></td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CH 107</td>
<td>General Chemistry</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>MA 105</td>
<td>College Algebra or MA 100 Math</td>
<td>3</td>
<td></td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ML 144</td>
<td>Clinical Colloquium</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>9</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 225</td>
<td>Parasitology</td>
<td>2</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SC 105</td>
<td>Anatomy and Physiology</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CH 110</td>
<td>Introduction to Organic Chemistry</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>MA 110</td>
<td>Statistics</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>9</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML 214</td>
<td>Diagnostic Bacteriology</td>
<td>2</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ML 210</td>
<td>Hematology and Renal Physiology</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ML 215</td>
<td>Serology and Immunology</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science +</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CH 204</td>
<td>Biochemistry</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>12</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>
Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML 200</td>
<td>Histology and Cytology</td>
<td>3</td>
</tr>
<tr>
<td>ML 211</td>
<td>Clinical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>ML 243*</td>
<td>Practicum in Medical Technology†</td>
<td>3</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>6</td>
</tr>
</tbody>
</table>

* Students are required to provide their own transportation to off-campus field experiences.
† Students are required to provide their own transportation to off-campus field experiences.
For SC—courses see Biological Technology.
+ Psychology recommended.

* It is recommended that students who intend to pursue a Baccalaureate Degree in Biology elect SC 136 (Botany) in lieu of ML 243 (Practicum).

MORTUARY SCIENCE

PROFESSOR JOHN LIEBLANG, Chairman

The primary objective of the Department of Mortuary Science, is to offer academic training which will prepare the student to accept his obligation in the community as a professional person and a citizen.

The first of its type in New York State, this two-year degree program includes extensive work in the areas of biological science, business and accounting, as well as instruction within the major area of concentration. Upon completion of their two years of academic preparation, graduates are required by State Law to take the New York State Licensing Examination for Funeral Directors and to serve as Registered Residents for a period of one year prior to receiving their licenses.

For all field experiences, student dress must conform to field agency protocol.

Typical Employment Opportunities

Manager or Supervisor of a Funeral Home
Licensed Funeral Director

Funeral Director-Embalmers
Embalmers
Registered Resident

MORTUARY SCIENCE

First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS 101</td>
<td>History and Orientation of Funeral</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Principles and Practices</td>
<td>0</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>SC 107</td>
<td>Biology</td>
<td>3</td>
</tr>
<tr>
<td>SO 222</td>
<td>Sociology</td>
<td>3</td>
</tr>
<tr>
<td>CH 106</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>PE 102</td>
<td>Physical Education</td>
<td>0</td>
</tr>
</tbody>
</table>

Total Credits Required: 66 or 67
### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS 102</td>
<td>Public Health and Sanitary Science</td>
<td>3</td>
</tr>
<tr>
<td>SC 110</td>
<td>Medical Microbiology</td>
<td>2</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>SC 105</td>
<td>Anatomy &amp; Physiology</td>
<td>3</td>
</tr>
<tr>
<td>SO 220</td>
<td>Psychology or SO 219 Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PE 103</td>
<td>Physical Education</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total Credits:** 14

### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS 203</td>
<td>Embalming Theory and Practice</td>
<td>3</td>
</tr>
<tr>
<td>MS 204</td>
<td>Restorative Art</td>
<td>2</td>
</tr>
<tr>
<td>MS 208</td>
<td>Histology and Pathology</td>
<td>2</td>
</tr>
<tr>
<td>MS 202</td>
<td>Anatomy for Embalmers</td>
<td>2</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 12

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS 205</td>
<td>Mortuary Law</td>
<td>3</td>
</tr>
<tr>
<td>MS 206</td>
<td>Mortuary Management and Practicum</td>
<td>3</td>
</tr>
<tr>
<td>MS 207</td>
<td>Clinical Practice</td>
<td>2</td>
</tr>
<tr>
<td>BA 101</td>
<td>Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MS 209</td>
<td>Funeral Counseling and Psychology</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits:** 13

---

**Typical Employment Opportunities**

- Assistant Teacher Early Childhood Education Programs
- Assistant Teacher Day Care Center
- Assistant Teacher in Nursery School
- Assistant Teacher for the Physically Handicapped
- Attendant in a School for the Mentally Retarded
- Counselor in Children's Home
- Summer Camp Counselor

---

**NURSERY EDUCATION**

**Professor Paul S. Riley, Chairman**

The curriculum in Nursery Education is designed to provide post-high school training for students in preparation for careers in day nurseries and private nursery schools. The curriculum in Nursery Education would qualify the graduate for work with young children under private and public auspices.

For all field experiences, student dress must conform with field agency protocol.

---

† Students must provide own transportation to off-campus field experiences.
* Prerequisite SC 105 Anatomy and Physiology.
** Prerequisite SO 219 or SO 220 Psychology.
The following list of courses is a model program. The sequence in which students complete these courses will be determined in consultation with the Chairman of the Nursery Education Department. It is the students' responsibility to insure that all courses are completed before graduation.

**Nursery Education**

**PROGRAM REQUIREMENTS**

**GROUP I General Education Area—38 Credits**

- English (EN 100, EN 114) 6
- Psychology (SO 219, SO 220, SO 232) 9
- Sociology (SO 222, SO 223, SO 239) 6
- Minorities in American Society (SO 239) 3
  or Black History (SO 243)
  or History of Puerto Rico (SO 248)
- Natural Science (SC 119 or SC 107) 3
- Nutrition (FT 109) 3
- Physical Science (PH 112) 3
- Health Education (NU 210) 3
- Physical Education 2

**GROUP II Nursery Education Area—24 Credits**

- ED 100 Introduction to Nursery Education 3
- ED 101 Creative Activities I 3
- ED 102 Creative Activities II 3
- ED 115 Children's Education 3
- ED 200 Children's Literature 3
- **ED 207 Field Experiences in Early Childhood 8**
  *ED 215 Workshop in Early Childhood 3
  *ED 216 Education of Young Children from Minority Groups 3
  *ED 217 Education of Exceptional Children 3

**GROUP III—3 Credits**

Courses selected by student from any other curriculum chosen by the student with advisement to complete a minimum of 67 credits.

Total: 67

*Elective

**Students must provide their own transportation.
# NURSERY EDUCATION

## SEQUENCES OF COURSES

### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED 100</td>
<td>3</td>
</tr>
<tr>
<td>ED 101</td>
<td>3</td>
</tr>
<tr>
<td>SO 219</td>
<td>3</td>
</tr>
<tr>
<td>SO 222</td>
<td>3</td>
</tr>
<tr>
<td>EN 100</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits:** 16

### Second Semester

**Group A**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 119</td>
<td>3</td>
</tr>
<tr>
<td>SO —*</td>
<td>3</td>
</tr>
<tr>
<td>ED 102</td>
<td>3</td>
</tr>
<tr>
<td>ED 115</td>
<td>3</td>
</tr>
<tr>
<td>ED 120</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits:** 16

**Group B**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 119</td>
<td>3</td>
</tr>
<tr>
<td>SO 220</td>
<td>3</td>
</tr>
<tr>
<td>SO 223</td>
<td>3</td>
</tr>
<tr>
<td>EN 114</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>1</td>
</tr>
<tr>
<td>Elective†</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 16

### Third Semester

**ED 207**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED 200</td>
<td>3</td>
</tr>
<tr>
<td>FT 109</td>
<td>3</td>
</tr>
<tr>
<td>SO 232</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 17

**ED 120**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NU 210</td>
<td>3</td>
</tr>
<tr>
<td>SO —*</td>
<td>3</td>
</tr>
<tr>
<td>ED 115</td>
<td>3</td>
</tr>
<tr>
<td>ED 102</td>
<td>2</td>
</tr>
<tr>
<td>SO 232</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 17

### Fourth Semester

**NU 210**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO —*</td>
<td>3</td>
</tr>
<tr>
<td>PH 112</td>
<td>3</td>
</tr>
<tr>
<td>SO 223</td>
<td>3</td>
</tr>
<tr>
<td>Elective +</td>
<td>3</td>
</tr>
<tr>
<td>EN 114</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 18

**ED 207**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED 200</td>
<td>3</td>
</tr>
<tr>
<td>FT 109</td>
<td>3</td>
</tr>
<tr>
<td>PH 112</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 17

* Students must elect either SO 239, or SO 243, or SO 248.
† Students may elect ED 216, or ED 217, or SO —.
** Students must provide their own transportation.
The preparation of a technical nurse is the major objective of the Nursing program. This may be achieved within two academic years. Upon graduation, students receive the Associate in Applied Science degree and are eligible to take the New York State licensing examination for registered nurses.

The curriculum offers a balance of general education courses and specialized courses in nursing. Combined, these courses meet the graduation requirements and ready the student for his role as a nurse and as a citizen in today's society.

The technical or specialized aspect of the program is planned to provide each student with active participation in giving nursing care to individuals from infancy to old age. These learning experiences are obtained in various hospitals. To further enrich the student's experiences, observation periods are made available in community health and welfare agencies, physicians' offices, and by field trips.

Each student is assisted in the development of his fullest potential through guidance given by teachers who possess broad nursing experience and academic preparation in their fields.

The Department of Nursing is accredited by the National League for Nursing.

Men and women of any age, single or married, who meet the college entrance requirements are eligible for admission to the program. Applicants MUST submit evidence of satisfactory health in advance of registration.

Typical Employment Opportunities

First level nursing positions in hospitals and community agencies.

NURSING

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>NU 101</td>
<td>4 Class 9 Lab 7 Credit</td>
</tr>
<tr>
<td>SC 105</td>
<td>3 Class 2 Lab 4 Credit</td>
</tr>
<tr>
<td>SO 220</td>
<td>3 Class 0 Lab 3 Credit</td>
</tr>
<tr>
<td>EN 100</td>
<td>0 Class 2 Lab 1 Credit</td>
</tr>
<tr>
<td>PE —</td>
<td>— Class — Lab — Credit</td>
</tr>
</tbody>
</table>

13 Class 13 Lab 18 Credit
### Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NU 102</td>
<td>Nursing-Parent and Child-Health†*</td>
<td>3</td>
</tr>
<tr>
<td>CH 106</td>
<td>Introduction to Biochemistry*</td>
<td>3</td>
</tr>
<tr>
<td>SO 232</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NU 201</td>
<td>Nursing-Mental and Physical Illness†*</td>
<td>6</td>
</tr>
<tr>
<td>SC 110</td>
<td>Medical Microbiology*</td>
<td>2</td>
</tr>
<tr>
<td>SO 222</td>
<td>Sociology</td>
<td>3</td>
</tr>
<tr>
<td>EN 114</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NU 202</td>
<td>Nursing-Mental and Physical Illness†*</td>
<td>5</td>
</tr>
<tr>
<td>NU 204</td>
<td>Nursing in Modern Society</td>
<td>2</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science Elective**</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

---

**Total Credits Required:** 69

† Students are required to provide their own transportation to off-campus field experiences.
For all field experiences, student dress must conform with field agency protocol.

* A grade of "C" or better must be maintained in all clinical and clinically related courses; all prerequisites for these courses, as listed in the catalog, require a grade of "C" or better. A failure in a clinically related area constitutes a withdrawal from the curriculum.

** Selected in consultation with major advisors.
The Department of Ornamental Horticulture offers courses for those who would be engaged in business or obtain employment in the field of ornamental horticulture. The program is based upon analysis of the job requirements of technicians in floriculture, landscape, nursery, turf and related horticulture enterprises.

Opportunities in the fields of ornamental horticulture are more numerous than ever. Each year, requests for technically prepared men and women have greatly exceeded the number of available graduates.

During the first semester the courses in ornamental horticulture are basic and preparatory for the specialization which follows and are the same for all students, providing them with the opportunity to apply principles to specific problems. Integrated with the subject matter courses are laboratory and field experiences. Specialization continues in the second year where further opportunity is afforded for improving competence and judgment.

Ornamental Horticulture

(First Semester: the same for all Options)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 101</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 110</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>MA 100</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>SC 102</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

At the beginning of the second semester each student selects one of the following options: Floriculture, Landscape Development, Nursery Management, or Turfgrass Management. An option will be offered only when the number of students selecting it is sufficient.

Field trips will be required in a number of courses during the two years at an estimated cost to the student from $15 to $50.

As a financial aid there are a number of scholarships offered to students in Ornamental Horticulture. Many of these scholarships become available during the third and fourth semesters and are based on scholarship and other criteria.
FLORICULTURE MERCHANDISING
FLORICULTURE PRODUCTION

The business of growing and selling flowers has been stimulated by the increase in our standard of living and the slogan, "Say it with Flowers" which the public has adopted as its own. Every community has its florist shop where flowers and plants are displayed and sold. Frequently these shops are attached to the greenhouses where flowers may be both grown and displayed. In cities, the florist maintains a shop which he stocks with plants and cut flowers to sell to customers for anniversaries, weddings, engagements, expressions of sympathy, and everyday living.

Skilled technicians are needed to operate commercial greenhouses ranges due to the use of complex and automated equipment, CO₂ and lighting systems, and various growth regulators and retardants used to produce economically top quality plants for the industry.

Typical Employment Opportunities

<table>
<thead>
<tr>
<th>Floral Designer</th>
<th>Retail Florist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flower Shop Manager</td>
<td>Wholesale Florist</td>
</tr>
<tr>
<td>Private Estate Flower Grower</td>
<td>Salesman or Sales Manager</td>
</tr>
<tr>
<td>Indoor Plant Designer</td>
<td>Commercial Grower</td>
</tr>
</tbody>
</table>

FLORICULTURE MERCHANDISING—
FLORICULTURE PRODUCTION

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Week</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 102</td>
<td>Floriculture</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>OH 103</td>
<td>Herbaceous Plants I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 104</td>
<td>Horticulture II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 107</td>
<td>Woody Plants I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SC 108</td>
<td>Entomology I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>PE</td>
<td>Physical Education</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total  | 12 | 16 | 19 |

Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Week</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 202</td>
<td>Flower Shop Management I</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>OH 203</td>
<td>Greenhouse Management I</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OH 204</td>
<td>Herbaceous Plants II</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>SC 204</td>
<td>Entomology II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective (General or Horticultural)*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total  | 8  | 16 | 14 |

Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Week</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 215</td>
<td>Flower Shop Management II</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OH 216</td>
<td>Greenhouse Management II</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>SO</td>
<td>Social Science</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>OH 218</td>
<td>Indoor Plants</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

| Total  | 12 | 11 | 16 |

Total Credits Required: 64
LANDSCAPE DEVELOPMENT

The construction of private and public buildings during the past few years has hit new highs. One result of this activity has been an increased need for the services of the landscape man. Despite the many good publications available on the subject of landscaping, home owners seek the advice of trained horticulturists when contemplating a complex or partial landscape job. A trained landscape man is prepared to build and maintain lawns; plant and cultivate trees, shrubs, flowers, and other plants; and design and construct landscape features, including walks, paths, small pools, and walls. Likewise pruning, spraying, feeding, and other kinds of tree work require the services of the competent landscape man.

Typical Employment Opportunities

- Landscape Designer
- Landscape Consultant
- Landscape Contractor
- Landscape Construction Foreman
- Landscape Planting Foreman
- Landscape Technician
- Garden Center Manager
- Arborist
- Landscape Inspector
- Landscape Nurseryman
- Landscape Maintenance Business
- Park Superintendent

LANDSCAPE DEVELOPMENT

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 103 Herbaceous Plants I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 104 Horticulture II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 105 Landscape Gardening</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>OH 107 Woody Plants I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SC 108 Entomology I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 101 Introduction to Literature</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 206 Horticultural Management and Operations</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OH 207 Landscape Plans I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>OH 212 Woody Plants II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 221 Landscape Surveying</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>OH — Elective*</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 219 Landscape Construction</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 220 Landscape Plans II</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>OH 108 Turfgrass Culture</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>16</td>
</tr>
</tbody>
</table>

Total Credits Required: 64
NURSERY MANAGEMENT

With increasing needs for landscape services due to an accelerated building program comes a corresponding stepped-up demand for plants. A person entering the field of ornamental horticulture, beside having a love for plants, must be able to propagate and grow to a commercial size, the many different species and varieties of woody plants which can be sold to the landscape man or homeowner. The nursery, because of land values, is usually located in the lightly populated suburban or rural areas. Another type of nursery activity is the garden center where plants are held temporarily for sale to wholesale or retail customers.

This option provides a general background in horticulture and an in-depth study for the production of nursery stock produced in the field or container. Emphasis is placed on production, marketing and management operations.

Typical Employment Opportunities

Nursery Manager
Plant Propagator
Garden Center Manager
Retail Nurseryman
Wholesale Nurseryman
Horticulturist

Designer Landscape Department
Arboretum Superintendent
Woody Plant Specialist
State Horticultural Inspector
Custom Spray Operator
Parkway Supervisor

NURSERY MANAGEMENT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 103</td>
<td>Herbaceous Plants I</td>
<td>2</td>
</tr>
<tr>
<td>OH 104</td>
<td>Horticulture II</td>
<td>2</td>
</tr>
<tr>
<td>OH 106</td>
<td>Nursery Management I</td>
<td>1</td>
</tr>
<tr>
<td>OH 107</td>
<td>Woody Plants I</td>
<td>2</td>
</tr>
<tr>
<td>SC 108</td>
<td>Entomology I</td>
<td>2</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>0</td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 208</td>
<td>Nursery Production</td>
<td>3</td>
</tr>
<tr>
<td>OH 209</td>
<td>Planting Plan I</td>
<td>1</td>
</tr>
<tr>
<td>OH 212</td>
<td>Woody Plants II</td>
<td>2</td>
</tr>
<tr>
<td>OH —</td>
<td>Elective*</td>
<td>1</td>
</tr>
<tr>
<td>OH 203</td>
<td>Greenhouse Management I</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 222</td>
<td>Nursery Management II</td>
<td>2</td>
</tr>
<tr>
<td>OH 240</td>
<td>Horticultural Merchandising</td>
<td>2</td>
</tr>
<tr>
<td>OH 236</td>
<td>Drainage and Irrigation</td>
<td>2</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science Elective</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Total Credits Required: 64
TURFGRASS MANAGEMENT

With the increased emphasis being placed upon turf by municipalities, state, and federal agencies as they construct new highways, parkways, parks, and recreation areas throughout the country, the scarcity of competent turf specialists is becoming acute. The Turfgrass Management option prepares a student for such positions as golf course construction and maintenance foreman, golf course superintendent, cemetery, park, and grounds supervisors. Areas of instruction in addition to the basic horticultural courses include turf maintenance as a business, turfgrass problems, horticultural and turf equipment, landscape plans, landscape construction and topographical mapping.

Typical Employment Opportunities

Superintendent Golf Course
Turf Maintenance Business
Turf Supply Salesman
General Turf Construction
Contractor
Golf Course Construction
Contractor
Turf Research Technician
Commercial Sod Grower
Cemetery Superintendent
Golf Course Construction Foreman
Park Manager
Turf Consultant
Salesman Turf Products

TURFGRASS MANAGEMENT

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 104 Horticulture II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 107 Woody Plants I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 108 Turfgrass Culture</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 109 Turfgrass Management I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>SC 108 Entomology I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 101 Introduction to Literature</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 209 Planting Plans I</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>OH 206 Horticultural Management and Operations</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OH 214 Horticultural and Turfgrass Equipment</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 230 Turfgrass Management II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH — Elective*</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 129 Landscape Construction</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 236 Drainage and Irrigation</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>OH 240 Horticultural Merchandising</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Total Credits Required: 64
HORTICULTURE ELECTIVES

Electives—Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 203</td>
<td>Green House Management I</td>
<td>2</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>OH 112</td>
<td>Ecology</td>
<td>2</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>OH 201</td>
<td>Aboriculture I</td>
<td>2</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>OH 204</td>
<td>Herbaceous Plants II</td>
<td>1</td>
<td>3</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>OH 212</td>
<td>Woody Plants II</td>
<td>2</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>OH 214</td>
<td>Horticultural and Turfgrass Equipment</td>
<td>2</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SC 212</td>
<td>Weeds and Their Control</td>
<td>2</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SC 215</td>
<td>Plant Physiology</td>
<td>2</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Electives—Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH 213</td>
<td>Aboriculture II</td>
<td>1</td>
<td>3</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>OH 219</td>
<td>Landscape Construction</td>
<td>2</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>OH 225</td>
<td>Woody Plants III</td>
<td>1</td>
<td>3</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>OH 240</td>
<td>Horticultural Merchandising</td>
<td>2</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>OH 108</td>
<td>Turfgrass Culture</td>
<td>2</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>OH 218</td>
<td>Indoor Plants</td>
<td>2</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

FACILITIES

Extensive horticultural facilities, in addition to classrooms and conventional laboratories, reinforce the educational program of the College.

The horticultural complex enables a wide variety of practical experience with materials and methods especially appropriate for technicians.

Included are 20,000 square feet of glass in the conservatory and various greenhouses devoted to specialized crops; several acres of land devoted to a woody plant nursery with shade houses and portable greenhouses; an acre of turf demonstration plots; three golf greens; three acres of formal and informal gardens together with 10 acres of arboreums containing collections of shrubs and trees and a landscaped campus of 50 acres featuring a selected variety of plants.

The department takes advantage of the fine arboreums, golf courses, parks and landscaped estates found on Long Island. These facilities provide the Farmingdale student with one of the most unique horticultural backgrounds that can be found in the United States.

Areas are provided for the breeding and testing of plants in cooperation with individuals and private organizations engaged in research. These include official test plots of the All-American Selections, flower seed trials, and a demonstration rose garden.

Ornamentals Research Laboratory

This facility conducts research on problems of Long Island nurserymen and flower growers. It is a cooperative project of the New York State College of Agriculture at Cornell University, the United States Department of Agriculture at Beltsville, Maryland, and the College.
PHOTOGRAPHIC TECHNOLOGY

PROFESSOR GLENN M. SMITH, Acting Coordinator

The Photographic Technology student at Farmingdale is provided with fundamental knowledge and laboratory experience in the applications of science which are basic to photographic materials, equipment, processes, and procedures. This is done, for the most part, with course work in photographic technology, electricity-electronics, photographic mechanisms, and basic photographic chemistry. Occasional industrial tours and industrial speakers further enhance the student's technological exposure, and his education is "rounded out" with course work in English, mathematics, social sciences, and physical education.

With this educational background, graduates are qualified to begin working toward positions in photographic technology like the following which are currently held by Farmingdale graduates:

Typical Employment Opportunities

Salesman, photographic quality control instrumentation
Salesman, professional photographic darkroom equipment
Photographic lab technician, U. S. Navy
Photographer, U. S. Navy
Photographic lab manager
Photofinishing lab technician, quality control
Part-time instructor, Photographic Technology
Salesman, professional photographic films, paper, and chemicals

Technical Assistant to
Photographic Technology Instructors
Photographic Engineer
Vice-President, high school yearbook company
Working Partner, Photographic studio
Graphic arts cameraman
Sales manager, professional photographic film, paper, and chemical manufacturer
Technical service representative, photofinishing equipment, troubleshooting and repair

Although there are generally more job openings than there are photographic technology graduates to fill them, not all graduates begin their careers immediately. Increasing numbers are transferring to advanced degree programs. While transfer to professional photography programs normally presents little difficulty, providing the graduate has passed all transfer courses with a C or better, transfer with junior status to science-engineering programs will present more difficulties and should be fully explored as early as possible.
## PHOTOGRAPHIC TECHNOLOGY

### First Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT 101</td>
<td>Photographic Processes</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>ET 102</td>
<td>Electricity I</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MA —</td>
<td>Mathematics*</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PH —</td>
<td>Physics*</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

### Second Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT 102</td>
<td>Photographic Processes</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>ET 104</td>
<td>Electricity II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MA —</td>
<td>Mathematics*</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PH —</td>
<td>Physics*</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science*</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT 210</td>
<td>Photographic Mechanisms I</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>PT 202</td>
<td>Photographic Processes III</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>ET 212</td>
<td>Electronics</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PT —</td>
<td>Technical Subject or Seminar**</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science*</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT 204</td>
<td>Photographic Electronics</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PT 205</td>
<td>Photographic Mechanisms II</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>PT 206</td>
<td>Photographic Processes IV</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CH 213</td>
<td>Photographic Chemistry</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science*</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>

**Total Credits Required:** 71

---

*For an Associate Degree in Photographic Technology, the minimum mathematics-physics requirements are, MA 120, MA 121, PH 101, and PH 102. For students planning to transfer with junior status to baccalaureate programs in professional photography, MA 124, 125, PH 131, and PH 132 may be the minimum requirements depending on desired baccalaureate program. For transfer with junior status to the only available photographic science-engineering program, the minimum math-physics requirements are MA 150, MA 151, MA 152, MA 153, PH 131, and PH 132. Additional courses not a part of the normal Photographic Technology curriculum are also required. In all cases, it is recommended that students take the highest level of math and physics they can handle soundly.

**Students have the option of taking either PT 203, a self-study seminar, an additional 3 credits of math, or a suitable technical elective, providing such an elective can be worked into students' schedules.
PHYSICAL EDUCATION

PROFESSOR THOMAS WATT, Chairman

Physical Education is designed to help students lead more effective and satisfying lives. Instruction in Physical Education offers students an opportunity to learn the skills of such lifetime sports as Badminton, Bowling, Golf and Tennis. These sports can be played and enjoyed throughout life.

One year of Physical Education is required of all students who are medically fit. Exemption from this requirement may be granted any student who has a medical impairment or advanced credit from another institution. Students who are medically excused from Physical Education for conditions that are of a short term or temporary nature, must complete the Physical Education Requirement in order to graduate. The College accepts the recommendation of the American Council on Education that veterans with at least six months service be excused from those physical education courses required of all students. A regulation uniform is required of all students taking Physical Education.

In addition to Physical Education Courses, the college provides an extensive Athletic Program of Intercollegiate and Intramural Sports and Games for both men and women. The men's Intercollegiate Athletic Program includes Baseball, Basketball, Bowling, Cross Country, Golf, Gymnastics, Indoor Track, Lacrosse, Soccer, Tennis, Track and Field, and Wrestling. Intercollegiate Athletics for women includes Badminton, Bowling, Basketball, Field Hockey, Softball, Tennis, and Volleyball. All men and women coaches are full-time members of the Physical Education Faculty.

The purpose of the Intramural Sports Program is to provide each medically qualified student at Farmingdale the opportunity to participate in an activity of his or her choice, as far as available facilities will permit. The program is organized for both individual and team competition. Intramural sports are a supplement to the general physical education program. Intramural participation is invited in Badminton, Basketball, Tennis, Golf, Softball, Bowling, Flag Football, Horseshoe Pitching, Track and Field and Volleyball. Intramural Athletic Activities for women include Badminton, Bowling, Tennis and Volleyball.
PHYSICS

PROFESSOR PETER J. NOLAN, Chairman

The Physics Department offers a large number of courses to service the various curriculums. Physical Science, Astronomy, Man's Environment, and The Man-Made World are electives for the nontechnical areas. A non-calculus College Physics course with laboratories is offered for the technology students, and a calculus based University Physics course with laboratories is offered for the engineering science students. An Elementary Physics course for pre-technology and non ECPD programs is also offered.

POLICE SCIENCE

DR. GEORGE G. MCKENNA, Chairman

The preservation of the peace, the protection of life and property, the safeguarding of civil rights, and the maintenance of social order are essential to the functioning of a democratic society.

To provide for this peace, security, safety, and freedom, public and private agencies at the local, state, and federal levels are engaged in activities designed to enforce laws; detect and apprehend criminals; prevent crime and delinquency; correct and rehabilitate offenders; provide safety and security in industrial, commercial, financial organizations; and promote highway safety.

The Department of Police Science provides preparation for career services in these areas. Supported by a broad general education, training is given to develop professional competence in the fields of law enforcement administration, police science, the prevention and control of delinquency and crime, correctional administration, industrial security administration, and highway traffic administration.

The program is offered in cooperation with the law enforcement, correctional administration, and industrial security organizations of the State of New York.

For all field experiences, student dress must conform with field agency protocol. Applicants to Police Science and Correctional Administration should be in good mental and physical health.

Typical Employment Opportunities

Law enforcement positions with:
Federal Government
State Government
Business and Industrial Security

Insurance Claim Investigation
U.S. Armed Forces Police
Local Government: County,
City, Town
<table>
<thead>
<tr>
<th>Course</th>
<th>First Semester</th>
<th>Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 103</td>
<td>History of American Law &amp; Justice</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PS 214</td>
<td>Police-Community Relations</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MA —</td>
<td>Elective*</td>
<td>3</td>
<td>3 or 4</td>
</tr>
<tr>
<td>SO 216</td>
<td>State and Local Government</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15</td>
<td>4-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Second Semester</th>
<th>Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 110</td>
<td>Police Administration</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Literature</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MA or SO</td>
<td>Elective*</td>
<td>3</td>
<td>3 or 4</td>
</tr>
<tr>
<td>SO 219 or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SO 220</td>
<td>General Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective**</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15</td>
<td>4-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Third Semester</th>
<th>Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 200</td>
<td>Forensic Science I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PS 218</td>
<td>Criminal Justice I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PS 226</td>
<td>Juvenile Delinquency</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SO 222</td>
<td>Sociology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective**</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Fourth Semester</th>
<th>Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 201</td>
<td>Forensic Science II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PS 219</td>
<td>Criminal Justice II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PS 227</td>
<td>Organized Crime</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science +</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective**</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits: 62 +

* Prior Consultation with Police Science Faculty required.

** Choice from HU - EN - LA - SC - MA - PS - CA - SO - in consultation with Police Science Faculty, and depending on availability of courses.

+ SO 239, or SO 243, or SO 248.

**CORRECTIONAL ADMINISTRATION**

<table>
<thead>
<tr>
<th>Course</th>
<th>First Semester</th>
<th>Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 103</td>
<td>History of American Law &amp; Justice</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PS 214</td>
<td>Police-Community Relations</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE —</td>
<td>Physical Education</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MA or SC</td>
<td>Elective*</td>
<td>3</td>
<td>3 or 4</td>
</tr>
<tr>
<td>SO 216</td>
<td>State &amp; Local Government</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15</td>
<td>4-5</td>
</tr>
<tr>
<td>Semester</td>
<td>Course Title</td>
<td>Credits</td>
<td>Electives</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------</td>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td>PS 110 Police Administration</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>EN 101 Introduction to Literature</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>MA or SC Elective*</td>
<td>3</td>
<td>0-2-3</td>
</tr>
<tr>
<td></td>
<td>SO 219 or SO 220 General Psychology</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Elective**</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>4-5</td>
</tr>
<tr>
<td><strong>Third Semester</strong></td>
<td>PS 250 Introduction to Probation and Parole</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PS 218 Criminal Justice I</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PS 226 Juvenile Delinquency</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SO 222 Sociology</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PS 251 Criminology</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td><strong>Fourth Semester</strong></td>
<td>PS 252 Probation and Parole II</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PS 219 Criminal Justice II</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PS 253 Introduction to Penal Administration</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SO — Social Science +</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Elective**</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits:</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Prior Consultation with Police Science Faculty required.

** Choice from HU - EN - LA - SC - MA - PS - CA - SO - in consultation with Police Science Faculty, and depending on availability of courses.

+ SO 239, or SO 243, or SO 248.
Today, because of the shorter work week, highly competitive way of life, and increased leisure time available to most people, recreation has become an essential component of daily living. As a social force, the challenge and impact of recreation in the future will increase rather than diminish.

The program in Recreation Leadership is designed to prepare young men and women for careers as recreation technicians. Graduates of the two-year Associate Degree program are well-equipped to assist in the planning and conduct of recreation programs in a variety of community and institutional settings. In addition, the recreation technician provides clients with a variety of leisure time skills, interests and hobbies with carry-over values for healthful living. For all field experiences, student dress must conform with field agency protocol.

**Typical Employment Opportunities**

- Hospitals
- Boys Clubs and Girls Clubs
- Settlement Houses
- Camps
- Churches
- Y.M.C.A. and Y.M.H.A.
- Y.W.C.A. and Y.W.H.A.
- School Recreation
- Community Recreation
- Parks

**RECREATION LEADERSHIP**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class</strong></td>
<td><strong>Lab.</strong></td>
<td></td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>RS 100 Philosophy of Recreation</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>RS 110 Recreation Skills &amp; Techniques</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>RS 112 Officiating &amp; Coaching Techniques</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SO 219 General Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PE 105 First Aid and Safety</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class</strong></td>
<td><strong>Lab.</strong></td>
<td></td>
</tr>
<tr>
<td>EN 114 Speech</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>RS 105 Organization of Community Recreation</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>RS 107 Arts and Crafts</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>RS 111 Recreation Skills &amp; Techniques</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MA 100 Math</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SC 119 Biology</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>
### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NU 210</td>
<td>Personal, Family &amp; Community Health</td>
<td>3</td>
</tr>
<tr>
<td>RS 212</td>
<td>Recreation for Ill, Handicapped &amp; Aged</td>
<td>3</td>
</tr>
<tr>
<td>RS 205†</td>
<td>Field Work in Recreation or Elective (3,0)</td>
<td>1 6 3</td>
</tr>
<tr>
<td>RS 215</td>
<td>Skills in Cultural Arts</td>
<td>2 2 3</td>
</tr>
<tr>
<td>PE 213</td>
<td>Golf</td>
<td>0 2 1</td>
</tr>
<tr>
<td>SO 232</td>
<td>Developmental Psychology</td>
<td>3 0 3</td>
</tr>
</tbody>
</table>

Total Credits Required: 3 4 16 or 17

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 108</td>
<td>Introduction to the Theatre</td>
<td>3 0 3</td>
</tr>
<tr>
<td>SO 243</td>
<td>Black History</td>
<td>3 6 4</td>
</tr>
<tr>
<td>RS 205†</td>
<td>Field Work in Recreation or Elective (3,0)</td>
<td>3 0 3</td>
</tr>
<tr>
<td>RS 210</td>
<td>Outdoor Recreation &amp; Camping</td>
<td>3 0 3</td>
</tr>
<tr>
<td>RS 213</td>
<td>Recreation Facility &amp; Equipment Management</td>
<td>3 2 1</td>
</tr>
</tbody>
</table>

Total Credits Required: 13 or 15 2 or 8 16 or 17

† Students are required to provide their own transportation to off-campus field experiences.
SECRETARIAL SCIENCE
PROFESSOR NORMA CURCHACK, Chairman

The Secretarial Science curriculum prepares students for careers through a concentration of specialized study in one of the four options offered by the department.

All students are required to take a core curriculum during their first year. This core program develops the basic fundamentals necessary for the second-year specialization in Advertising, Executive, Legal, or Medical. Each option is further enriched through a required sequence of study in English, mathematics and sciences; and the social sciences.

Typical Employment Opportunities

Technical Secretary:
   Advertising
   Legal
   Medical
   Executive Secretary
   Executive Assistant

Engineering Aide
   Production Assistant
   Research Assistant
   Specifications Writer

SECRETARIAL SCIENCE

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Lab.</td>
</tr>
<tr>
<td>SS 101 Typewriting (2)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>SS 111 Stenography (1)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 100 English Composition</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>BA 161 Business Law</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Lab.</td>
</tr>
<tr>
<td>SS 102 Typewriting (2)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>SS 112 Transcription (1)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>BA 101 Accounting</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>EN 101 Introduction to Literature</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MA-SC Math or Science (3)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PE — Physical Education</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8</td>
</tr>
</tbody>
</table>

(1) Stenography Sequences—SS 111, SS 112; SS 211, 212, or SS 112, 211, 212 or SS 211, 212.
(2) Typewriting Sequence—SS 101, SS 102, SS 201; or SS 102, SS 201.
(3) SC 107 Biology recommended for Medical Option.
## SECRETARIAL SCIENCE—ADVERTISING OPTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 201</td>
<td>Typewriting (2)</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SS 211</td>
<td>Transcription II</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BA 234</td>
<td>Advertising Principles</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MA-SC</td>
<td>Math or Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AA 201</td>
<td>Advertising Copywriting</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>15</td>
<td>6</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 133</td>
<td>Office Machines</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SS 212</td>
<td>Transcription III</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SS 250</td>
<td>Office Practice</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AA 202</td>
<td>Advertising Production</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>13</td>
<td>11</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits Required: 64

## SECRETARIAL SCIENCE—EXECUTIVE OPTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 201</td>
<td>Typewriting III</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SS 211</td>
<td>Transcription II</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BA 162</td>
<td>Business Communications</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DP 200</td>
<td>Data Processing</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MS-SC</td>
<td>Math or Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SO 220</td>
<td>General Psychology</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>15</td>
<td>6</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 133</td>
<td>Office Machines</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SS 212</td>
<td>Transcription III</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SS 250</td>
<td>Office Practice</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BA 111</td>
<td>Business Organization &amp; Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SO 206</td>
<td>Economics</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>14</td>
<td>8</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits Required: 64

## SECRETARIAL SCIENCE—LEGAL OPTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
<th>Class</th>
<th>Lab.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 133</td>
<td>Office Machines</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SS 201</td>
<td>Typewriting III</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SS 211</td>
<td>Transcription II</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SS 240</td>
<td>Legal Procedures I</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MA-SC</td>
<td>Math or Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SO —</td>
<td>Social Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>12</td>
<td>11</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>
### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 212</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SS 214</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SS 241</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SS 250</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits Required: 14

### SECRETAIRAL SCIENCE—MEDICAL OPTION

#### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 133 Office Machines</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>SS 201 Typewriting III</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>SS 211 Transcription II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SS 213 Medical Terminology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SC 105 Anatomy and Physiology</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits Required: 13

#### Fourth Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 215 Medical Transcription</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>SS 250 Office Practice</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SC 209 Medical Routines</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SO — Social Science</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits Required: 13
**SOCIAL SCIENCE**

**DR. FRANK J. CAVAIOLI, Chairman**

The Department of Social Science offers courses in two basic areas of instruction, Behavioral and Non-Behavioral Sciences. The Behavioral group includes Anthropology, Psychology and Sociology, while Non-Behavioral area courses are given in Economics, Geography, History, and Political Science.

Although courses in the Social Sciences are among requirements met by all students, the depth and breadth of subject matter covered, in a wide variety of Departmental courses, additionally fits the needs of students choosing Social Science courses as electives. The Department serves the College in equipping the terminal degree student, and by assisting transfer students to attain qualifications which may be considered, in meeting entrance requirements of four-year colleges and universities.

Beyond the particular needs of the College at Farmingdale, the Social Sciences complement degree and certificate program requirements by lending a sense of balance, and forming an integral part of the student’s exposure to higher education. Instruction in courses ranging from Anthropology to History supports the function of collegiate education in the United States, to educate more people in different ways. In the process, the Departmental areas of instruction strive to inculcate the liberalizing force of education, to inform, stimulate and induce the habit of inquiry, and to erase pre-existent prejudices and misconceptions.

**DEVELOPMENTAL STUDIES**

**PROFESSOR DOMENICK A. PUGLIESE, Coordinator**

The program in Developmental Studies is designed to help students make up the requirements for admissions to the non-science/mathematics oriented curriculums on campus: Liberal Arts and Sciences, Biological Technology, Business Administration, Data Processing, Graphic Arts, and Secretarial Science, Food Processing Technology, Agriculture, Ornamental Horticulture, Medical Laboratory Technician.

**DEVELOPMENTAL STUDIES**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><em><em>EN 112</em> Communications</em>*</td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td><strong>MA — Mathematics</strong></td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td><strong>SC — Biology</strong></td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td><strong>SO 101 Introduction to Social Sciences</strong></td>
<td>3 Class</td>
<td>3</td>
</tr>
<tr>
<td><strong>DS 101 Careers Orientation</strong></td>
<td>3 Class</td>
<td>3</td>
</tr>
</tbody>
</table>

15 Class | 0 Lab. | 15

* Where applicable to a particular course.
** Credit hours.
# Pre-Engineering Technologies

**Professor Domenick A. Pugliese, Coordinator**

Pre-Engineering Technology has been designed to enable those students who lack the minimum entrance requirements for the two year engineering technology programs gain entrance into career programs after successful completion of this one year course of study. Students are prepared to enter the following programs: Air Conditioning, Aerospace, Automotive, Chemical, Civil, Construction, Electro-Mechanical, and Photographic Technology.

## Pre-Engineering Technologies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 112*</td>
<td>Communication Skills</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MA*</td>
<td>Mathematics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MT 100</td>
<td>Drafting (Mechanical)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PR 110</td>
<td>Technical Orientation</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SO 101</td>
<td>Introduction to Social Sciences</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**First Semester**

<table>
<thead>
<tr>
<th>Total Credits Required: 15-15</th>
</tr>
</thead>
</table>

* When appropriate level of achievement is reached (or has been attained prior to admission) regular college courses would be substituted for preparatory courses.

## Pre-Engineering Technologies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours per Week</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 100</td>
<td>English Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MA*</td>
<td>Mathematics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PH 100</td>
<td>Physics</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>AT 100</td>
<td>Engineering Materials</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SO**</td>
<td>Social Science Elective</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Total Credits Required: 14-15</th>
</tr>
</thead>
</table>

* When appropriate level of achievement is reached (or has been attained prior to admission) regular college courses would be substituted for preparatory courses.

** Depending upon electives.
# Course Descriptions

Course descriptions are arranged in alphabetical-numerical order. The symbols identify or relate to the departments or instructional areas in which the courses are taught. Numbers in parentheses indicate lecture and laboratory hours per week respectively.

## ADVERTISING ART AND DESIGN

### AA 103 Advertising Layout I

The execution of rough and comprehensive layouts for newspaper and magazine ads. Emphasis upon the development of skill in indicating type and illustration with contemporary media.

(2, 3) 3 credits

### AA 104 Advertising Production I

A study of the reproduction processes used in the graphic arts and of the techniques of the preparation of art utilized by these processes. The making of paste-ups and mechanicals. The preparation of illustrations for line and halftone reproduction. Color pre-separation.

(2, 3) 3 credits

### AA 105 Design Fundamentals

An introduction to the fundamental principles of design. Exploration, in a variety of media, of the theories of utilization of line, form, texture, color and value in visual expression.

(1, 3) 2 credits

### AA 106 Figure Anatomy

A study of anatomy as related to the basic structure and characteristic proportions of the human figure. Drawings of the head and figure in various action poses.

(2, 3) 3 credits

### AA 107 Drawing Fundamentals

The principles of drawing—freehand perspective, light and shade, and pictorial composition—applied to both natural and fabricated subjects. The development of technique in black and white media.

(2, 3) 3 credits

### AA 108 Mechanical Art

The use of drawing instruments applied to advertising art. The drawing of geometric figures, charts and graphs, trade marks. Mechanical representation.

(1, 3) 2 credits

### AA 109 Lettering

An introduction to the basic letter forms and the modern letter styles used in advertising. A study of typography including type recognition and selection and its utilization as an element of design. The rendering of comprehensive and finished letter forms in the media of the contemporary advertising artist.

(2, 3) 3 credits

### AA 201 Copywriting

The writing of advertising copy. Psychological considerations in the selection of appeals and themes and the preparation of copy for various media. Emphasis upon creative writing and its application to the functions of modern advertising.

(3, 0) 3 credits

### AA 202 Advertising Production

A course for secretarial students. The basic principles of photomechanical reproduction as applied to letterpress, offset lithographic and gravure printing. The preparation of artwork, including mechanicals, for these processes. The recognition, selection and utilization of type in advertising.

(2, 3) 3 credits
AA 203 Advertising Layout II
Advanced problems in advertising and editorial layout, in both black-and-white and color. Emphasis upon the latest techniques of type and figure indication utilizing contemporary media. Professional procedures in making comprehensives, including discussion of production techniques and procedures.
(2, 3) 3 credits

AA 204 Advertising Illustration
Illustration for advertising in black-and-white and in color, executed in a variety of media. The techniques—realistic and stylized—of the contemporary advertising illustrator.
(2, 3) 3 credits

AA 207 Figure Drawing I
Drawing of the clothed figure. Emphasis upon the relationship of the garment to the underlying figure. The rapid portrayal of figures in contemporary media for advertising layouts.
(2, 3) 3 credits

AA 209 Graphic Design
The application of the principles of design to a wider range of advertising situations and media, including book jackets, record album covers, direct mail pieces, posters, and television art.
(2, 3) 3 credits

AA 210 Merchandise Illustration
The drawing of merchandise for newspaper and magazine advertising. Emphasis upon the exploration of a variety of media and the development of a personal rendering technique.
(1, 3) 2 credits

AA 211 Photo Retouching I
The use of the airbrush in rendering typical illustrations in black-and-white and color. The retouching of black-and-white photographic prints of merchandise for advertising reproduction.
(1, 6) 3 credits

AA 212 Seminar
A study of the business relationships in the advertising field. Practical exercises in producing a campaign. Prospecting for employment, working conditions, prospects for advancement. The preparation and presentation of the portfolio.
(1, 3) 2 credits

AA 213 Technical Illustration
The drawing of mechanical and technical subjects for catalog and handbook illustration. Orthographic and isometric projection.
(2, 3) 3 credits

AA 217 Industrial Drawing
The illustration of industrial products in isometric and perspective. The designing and drawing of graphs, charts, and visual aids. Industrial presentations.
(2, 3) 3 credits

AA 218 Fashion Illustration
The evolution and direction of men's and women's fashions. Sketching the fashion figure and the development of sketches required in the fashion industry. Rendering of fashion accessories and men's furnishings in line and wash.
(2, 3) 3 credits

AA 219 Photography
The principles of photography, including the use of equipment, lighting, exposure composition, processing, and enlarging. The use of photography in advertising.
(1, 3) 2 credits

AA 220 Figure Drawing II
Advanced projects in the drawing of the figure in black-and-white and color.
(3, 3) 4 credits

AA 221 Package Design
The application of the elements and principles of design to three-dimensional objects. Introduction to packaging and display problems. Label, box, and carton design. Students make sketches, models and finished drawings.
(2, 3) 3 credits
AA 222 Advertising Production II
The preparation of drawings for various methods of printing, including offset, letterpress, rotogravure, and silk screen. A study of typography, typespecing, copy fitting, paper selection and estimating.
(1, 3) 2 credits

AA 223 Oil Painting
Creative work in easel painting with attention to development of individual approach and style. Acrylic medium may be substituted for oil.
(1, 3) 2 credits

AA 224 Advertising Procedures
Planning campaign strategy. Determining the advertising appeal. Visualization. Media planning. The complete campaign. The application of product and marketing research.
(3, 3) 4 credits

AA 229 Photography II
Advanced projects in creative photography for advertising.
(1, 3) 2 credits

AEROSPACE TECHNOLOGY

AO 100 General Aeronautics
An introductory course covering the aeronautical knowledge essential to private pilots. Course will include FAA requirements for Basic Ground School in Federal Air Regulations; air navigation including radio navigation; meteorology; general service-aircraft and engines; safety practices and procedures.
(3, 0) 3 credits

AO 101 Aerodynamics
Nomenclature of aircraft; aircraft axes and motion about these axes. Problems involving lift and drag to illustrate the change in performance with change in velocity or weight or altitude, or wing area. Introduction to high speed flight.
(3, 0) 3 credits

AO 103 Airport Planning and Operation
To analyze those features which make up an airport, including an introductory identification of navigational aids found at airports. Classification of airports and an understanding of the relationship between airplane performance and airport design problems. Study of the growth of air transportation so that consideration can be given to various problems that go into planning and operating an airport.
(2, 0) 2 credits

AO 104 Aircraft Systems
Prerequisite: AO 101
(3, 4) 4 credits

AO 201 Aircraft Electronics
Fundamentals of electricity, capacitors and inductors, measuring instruments, batteries, generators, a-c and d-c current, principles of electronics, receivers, transmitters.
Prerequisite: PH 132
(3, 0) 3 credits

AO 202 Aircraft Power Plants
Theory and principles of operation of aircraft reciprocating engines, engine disassembly, assembly, carburetion, ignition systems, lubrication and Systems, Propellers.
Prerequisite: PH 131
(3, 3) 4 credits

AO 203 Navigation
Charts, chart projections and their use. Navigational instruments and their use. The use of the slide rule section and wind vector face of the navigational computer for solving various types of dead reckoning problems.
Prerequisite: AO 100
(3, 0) 3 credits
AO 205 Air Traffic Control

Radio aids to navigation, radio frequency and procedures. Use of publications; flight information manual; airman's guide; radio facility, approach, and terminal area charts; FAA manual of air traffic control procedures.
Prerequisite: AO 203
(4, 0) 4 credits

AO 206 Flight Technique

Aircraft and engine performance. Use of aircraft and engine cruise charts. Methods of cruise control; problems involving flight analysis, flight logs, and How-goz-it charts.
Prerequisite: AO 202, AO 101
(3, 0) 3 credits

AO 207 Jet Propulsion

Basic theory of the operation of jet engines. Classifications, identification, jet theory, thrust augmentation, centrifugal flow, axial flow, turbo props, athodyds and after burners.
Prerequisite: AO 202
(3, 0) 3 credits

AO 208 Meteorology

Fundamental physical concepts of meteorology. Meteorological instruments and observations. Teletype sequence and synoptic chart interpretation. Air masses, fronts, fog formation and dissipation, aircraft icing, and thunderstorms.
Prerequisite: AO 100
(3, 0) 3 credits

AO 210 Simulator & Instrument Flight Technique

Fundamental concepts involved in attitude instrument flying lab sessions involve use of GAT 1 simulator and students are taught basic skills needed to qualify as pilot and simulator instructors.
(2, 0) 2 credits

AO 211 Pilot Training (flight line)

Pre solo and solo training; introduction to elementary maneuvers for private pilot license; A/C used Cessna 150's and Piper Cherokee 140.
(0, 3) 1 credit

AO 212 Pilot Training (flight line)

Dual and solo flight training; advanced and cross-country phase; final preparatory maneuvers for private pilot license.
(0, 3) 1 credit

AGRICULTURE

AG 101 Animal Anatomy, Physiology, and Health

Anatomy and physiology as a background for disease treatment and control. The normal function of the organs and systems of the body. Symptoms, causes, and preventative treatment of common ailments of animals.
(2, 2) 3 credits

AG 102 Genetics

The principles of inheritance in plants and animals. The biological implications of genetics, in terms of the interplay of the effects of heredity units and environment, as a foundation for applied genetics.
(3, 0) 3 credits

AG 103, AG 104 Livestock and Poultry

Students must attain minimum standards of proficiency in this laboratory. Experience in operating farm machinery and equipment, preparing land for planting, caring for growing crops, harvesting grains, vegetables, and fruit, hauling, storing, and mixing feed. Practice using fertilizer, lime, and weed controls. The grading, storing, and marketing of farm products.
(0, 4) 1 credit each

AG 105 Introductory Animal Science

The common breeds of farm animals and poultry; their care and management. The economic importance of livestock and poultry in the agriculture of the State and Nation.
(1, 2) 2 credits
AG 106 Poultry Production and Marketing

Practical application to the problems of hatchery operation and management, brooding and rearing and the production of poultry meat and replacement stock. The preparation of eggs and meat for the consumer. Consideration of quality control and the State and Federal grading and inspection laws.

(1, 3) 2 credits

AG 107 Soil Science

The origin, formation, and chemical properties of soil. Soil texture, drainage, tillage, fertility, and the use of fertilizer, lime and farm manure related to the growing of plants.

(2, 3) 3 credits

AG 108 Livestock and Poultry Practice

Alternating schedules in the care of livestock and poultry to acquire experience and skills. Some weekend experience will be required. Students must attain minimum standards of proficiency.

(6, 4) 1 credit

AG 110 Tractor Operation and Maintenance

Types of farm tractors, their selection, operation, maintenance and “tune-up”; basic engine and power transmission theory.

(2, 2) 3 credits

AG 201 Agricultural Economics

The fundamental basic principles and relationships in the production, distribution and consumption of agricultural goods and services with particular application to Northeastern U.S. and New York State agriculture. Price levels, the price-income structure of agriculture, the role farm prices play and how they are determined, government and agriculture, agricultural cooperatives and the changing structure of farm markets. Students follow agricultural economics in the press and present a paper of some length showing their opinions and grasp of agricultural economics.

(3, 0) 3 credits

AG 202 Comparative Animal Genetics

The basic principles of livestock breeding including poultry. Problems of practical and economic importance of livestock and poultry breeders are considered, including artificial insemination, conversion factors, sire indices, testing methods, costs and production records. The College herds and flocks serve as practical examples.

(2, 2) 3 credits

AG 203 Beef Cattle Management

The place of beef cattle in New York State. Characteristics of the major breeds; selection of stock; feeding and management problems. Work with the College Angus herd.

(2, 0) 2 credits

AG 204 Dairy Barn Management

Practical experience with the College dairy herd. Herd management, feeding, breeding, and ailments. Offered in the third and fourth semesters.

(2, 0) 2 credits

AG 205 Dairy Cattle Management

Selection of the dairy farm, history and development of the dairy breeds, selection of stock, raising calves and young stock, selection and care of herd sires, feeding and management problems, disease control and housing.

(2, 2) 3 credits

AG 206 Dairy Science

The scientific, technical, and sanitary aspects of fluid milk production, including milk and its relation to public health, dairy barn scoring, and milk price plans. The composition and physical properties of milk, quantitative tests for butterfat, acidity, and solids. Students satisfactorily completing this course are eligible to take the examination for the New York State Tester's License.

(1, 3) 2 credits
AG 207 Farm Management Accounting
Complete business records as needed for the effective management of the agricultural business. The principles and practices of business accounting; basic fundamentals, books of original entry, special columnar journals, ledgers, worksheets, statements, and adjusting and closing of accounts. Farm inventories. The economic principles of farm management and the use of these principles in effective farm management.
(2, 2) 3 credits

AG 208 Field Crop Science
Field crops in the Northeast; cropping systems related to soils, types of farming, and environment; management procedures, balance of enterprises, conservation programs, pest control, and fertility.
(2, 2) 3 credits

AG 209 Fruit Science
The principles of growing trees and small fruits in the Northeast. The selection of plants, cultural practices in growing the crop to maturity, the control of insects and diseases. The study of varieties important to the Northeast. Propagation, pollination, tree nutrition, harvesting, grading, packaging, storing, and marketing.
(2, 3) 3 credits

AG 210 Agricultural Construction and Mechanization
Trends in livestock housing; economics of construction and efficiency. Farm location, farmstead planning, construction problems and techniques; materials, ventilation, and electrical facilities. The selection and maintenance of equipment and labor saving devices.
(2, 3) 3 credits

AG 211 Animal Nutrition
The proper nutrition of livestock including poultry. The sources of nutrients. Economical feed formulation, feed efficiency, and feeding practice.
(2, 2) 3 credits

AG 212 Meat and Meat Products
Meat as a food, and the processing of meat animals of several classes and species. Antemortem and post mortem examination. Federal and New York State meat inspection, refrigeration, and preservation of meats and meat products. Composition of meat, its vitamin content, and how to recognize the better grades as well as species and age of animal involved. The gross anatomy and physiology of the animals processed.
(1, 3) 2 credits

AG 213 Poultry, Physiology and Health
Building an effective barrier against poultry diseases, and insuring good health; principles of disease and parasite prevention and control.
(2, 2) 3 credits

AG 214 Soil and Water Conservation
The principles and methods of making accurate measurements and calculating land areas and elevation, as related to soil erosion controls and water conservation practices. Factors contributing to soil and water losses and vegetative and engineering practices involved in control measures.
(2, 3) 3 credits

AG 215 Soil Fertility
Plant nutrient needs, including the role of minor elements, for various crops. Constituents, ratios, and methods of mixing fertilizers. Soil tests for plant nutrients, fertilizer requirements, and recommendations correlated with the tests. Building and maintaining soil productivity.
(2, 3) 3 credits

AG 216 Vegetable Production
The fundamentals of gardening, preparing the soil, planting, cultivating, and harvesting. Dusting and spraying for insect and disease control.
(1, 2) 2 credits
AG 217 Fruit and Vegetable Culture
The basic principles and practices in growing vegetables, trees and small fruits, soil preparation, selection of varieties, planting, cultivating, insect and disease control, harvesting, grading and packaging.
(2, 2) 3 credits

AG 218 Animal Care
The fundamentals of large pet and laboratory animal care. Management, nutrition, disease, handling and assisting in treatment and surgery are considered. Blood and milk sample collection and records for the field, animal hospital, and laboratory are kept and discussed.
(2, 2) 3 credits

AG 219 Sheep and Swine Management
Lectures and laboratories will be coordinated, with the sheep and swine enterprises on the college farm. Students will work with the animals during lambing and farrowing seasons, during the spring semester. Shearing will also be done by students under the supervision of the instructor.
(1, 2) 2 credits

AG 220 Laboratory Animal Pathology
Diseases of laboratory animals, their nature, cause, prevention, and treatment.
(2, 2) 3 credits

AG 221 Metal Work
Theory and practical application of electric arc and oxy-acetylene welding. Cutting, shaping, drilling, tapping, threading, riveting, soldering, plumbing and sharpening of edge tools. Identification of metals and their uses.
(1, 2) 2 credits

AG 225 Farm Machinery
Selection, field operation, maintenance, and repair of basic, commonly used farm implements such as plows, harrows, drills, seeders, planters, cultivators, and harvesting machinery with emphasis on efficiency and economy in use. A comparison of different makes of machinery, choosing sizes suitable for the power available; combination of field operations to secure proper tractor load; characteristics of materials, ordering repairs, lubrication, bearing construction, and other subjects related to the selection and purchase of equipment. Field operation problems involving the numerous units of the College farms.
(2, 3) 3 credits

AIR CONDITIONING TECHNOLOGY

AC 101 Electricity
(2, 3) 3 credits

AC 102 Air Conditioning Equipment I
Prerequisite: AC 101
(2, 6) 4 credits

AC 103 Thermodynamics
Prerequisite: MA 120
(3, 0) 3 credits
AC 201 Air Conditioning Equipment II
Prerequisite: AC 102
(1, 3) 2 credits

AC 202 Air Conditioning Principles I
Principles of heat transfer. Heating and cooling load calculations. Psychrometrics. (4, 0) 4 credits

AC 204 Heating Principles
(3, 0) 3 credits

AC 206 Air Conditioning Principles II
Compressors, evaporators, water conservation equipment, heat pumps, absorption systems, refrigerant pipe sizing.
Prerequisite: AC 202
(3, 0) 3 credits

AC 207 Control Instruments
Fundamentals of measurement and control. Electric, electronic, and pneumatic control systems. Control of residential, commercial, and industrial air conditioning and heating systems. Zone control.
Prerequisite: AC 201, AC 211
(2, 3) 3 credits

AC 208 Engineering Measurements
Fundamental engineering measurements of pressure, temperature, time, speed, power, and fluid flow. Performance tests on centrifugal fans, air distribution systems, pumps, refrigeration systems, and heating systems.
Prerequisites: AC 103, AC 201
(1, 3) 2 credits

AC 210 Systems Design
Air Distribution systems, fans, filters, sound control. Design and layout of steam heating systems, hot water heating systems and year-round air conditioning systems.
Prerequisites: AC 204, AC 206
(2, 6) 4 credits

AC 211 Heating Equipment
A study and analysis of residential commercial, and industrial steam, hot water, and warm air heating systems. Equipment installation, maintenance, and analysis of service problems. Control systems. High pressure and low pressure oil burners, gas burners, and combustion testing.
Prerequisite: AC 101
(1, 3) 2 credits

AUTOMOTIVE TECHNOLOGY

AT 100 Engineering Materials
A developmental course covering the manufacture, physical properties, and characteristics of both metallic and nonmetallic engineering materials. Methods and testing standards of these materials will be examined and demonstrated. The course format provides the developmental students with assignments requiring orientation and utilization of the available college facilities.
(2, 0) 2 credits

AT 102 Mechanical Power Equipment
Theory, construction and service operations of those mechanical devices utilized in automotive suspension, steering, transmission of power and hydraulic braking systems.
(2, 4) 3 credits

AT 103 Mechanical Power Equipment
Theory, design, construction, inspection techniques, service and repair operations of the internal combustion engine and its component parts.
(1, 6) 3 credits
AT 104 Combustion Engines

Introduce heat engine types, construction arrangements, and operating cycles. Engine-vehicle performance parameters, group and individual problem solving. Effects of gasoline engine design on performance and combustion requirements. (2, 0) 2 credits

AT 105 Combustion Engines

Gasoline engine fuel requirements and carburetor systems analysis. Thermodynamic laws and applications to heat engine and refrigeration cycles. (1, 2) 2 credits

AT 106 Engineering Materials

Chemical and physical properties, methods of production, and utilization of industrial materials. Forging, casting, and welding. Physical tests and heat treatment. Projects in the use and care of hand tools for bench layout operations. (3, 3) 4 credits

AT 204 Electricity


AT 205 Electricity

Power networks, ignition, lighting, starting, and generating systems. Analysis of typical live repair and maintenance problems, using latest diagnostic test equipment and procedures. Electronics: diode, triode, tuning and regenerative circuits. Prerequisite: AT 204 (2, 3) 3 credits

AT 207 Power Transmission

Fluid type drive and transmission. Automotive hydraulic devices and their servo controls. Application of the principles of the planetary gear systems and conversion of fluid energy in the study of a wide variety of automatic transmissions. (2, 3) 3 credits

AT 210 Welding

Theory and practical application of electric arc welding; cutting, welding, and brazing with oxy-acetylene. (1, 3) 2 credits

AT 212 Machinery Marketing

Channels of distribution; the dealership, its location and building requirements, organizational structure, financing, insurance, and legal aspects; selecting, training, and compensating personnel; accounting and general management. (3, 0) 3 credits

AT 213 Senior Seminar

Performance of an extensive, faculty approved, research and/or construction, curriculum related project; submitting preliminary, progress, and final technical written reports and the presentation of a formal oral report. (1, 0) 1 credit

AT 214 Combustion Engines

Study and analyze the balancing and dampening of forces and motions of linear and torsional vibration. Laboratory analysis of current diesel solid fuel injection pumps and nozzles. Diesel combustion process with respect to injection and ignition. Combustion chamber design with regard to air distribution versus reaction kinetics theory. Prerequisite: AT 105 (1, 2) 2 credits

AT 215 Diesel Engines

Design and performance characteristics of piston, vane roots, Lysholm, centrifugal, axial, and Comprex diesel engine blowers and compressors. Engine governing systems, including isochronous types and paralleling of diesel generator sets. Diesel engine starters and starting procedures. Free piston and gas turbine engine design, performance, and control characteristics. Prerequisite: AT 214 (3, 3) 4 credits
AT 216 Engineering Measurements

Industrial type testing and reporting which involves pressure, temperature, speed, time, fluids, fuels and lubricants. Gasoline Engine performance tests under full throttle and road load conditions.

AT 217 Applied Mechanics

Basic kinematics; motion, velocity and acceleration analysis of four-bar linkages; and gears, cams and chain mechanisms. Fluid principles involved in the operation of power steering, power brakes and auxiliary servo units.

BIOLOGICAL SCIENCES

SC 100 Applied Entomology

This course is intended for people interested in custom spray work and aboriculture. The nature of an insect, how it functions and how it is injurious to plants is presented. Pesticides, and application equipment are considered. Laws and safety regulations will be discussed. This course should aid materially in the qualification of people as licensed spray men.

SC 104 General Microbiology


SC 105 Anatomy and Physiology

The structural and functional relationships of the human body systems. Concepts of the regulatory processes that integrate body cells, tissues, and organs. Individual study with physiological equipment, preserved and fresh materials, and models of biological structures. Prerequisite: SC 134, SC 137 or permission.

SC 106 Topics in Biology

Presentations by the biology faculty and guest lecturers on the latest developments and research progress in the various fields of biology followed by questions and discussion.

SC 107 Topics in Human Biology

Selected topics relevant to our society today which involve an understanding of the functions of the human body. This includes the effects of pollution, population control drug abuse, transplants, energy transfers and other pertinent materials.

SC 108 Entomology

The nature, structure, growth, habits, and injurious effects of insects and related forms. The identification of common plant pests, diseases, and their injuries, in the field. Control measures and application equipment. A collection of insects, plant diseases, and injuries is required.

SC 109 Dental Histology and Embryology

Designed primarily for students majoring in dental hygiene, this course includes a study of general histology and an understanding of the development of the face and oral cavity and the basic structure of the oral tissues. The study is made from previously prepared slides. Prerequisite: SC 105.
**SC 110 Medical Microbiology**

The role of microorganisms in the diseases of man and animals; the characterization of pathogenic bacterial species. Classification of communicable diseases and epidemiological aspects. Infection, immunity and host-resistance mechanisms; sero-diagnostic procedures in medical practice chemotherapy and mode of action of antibiotics.

Prerequisites: 1 sem. College Chemistry, 1 sem. College Biology.

(2, 2) 3 credits

**SC 111 Microbiology of Foods**

The relationship of microbes to food spoilage. Quantitative microbiological analysis of food and dairy products for determination of sanitary quality. Transmission and control methods for food and water-borne diseases; sources of microbiological contamination in the food processing plant and means of control.

Prerequisites: SC 104 and 2 semesters of College Chemistry.

(2, 3) 3 credits

**SC 114 Zoology**

The world of animal life and the processes which activate and govern it: Structure, function, development, reproduction, genetics and ecology.

(2, 2) 3 credits

**SC 115 Plant Physiology**

The functions of plant growth and maintenance of the seedling, vegetative, and reproductive stages of development. The physical and chemical factors involved in nutrition and growth are studied in the laboratory. Quantitative data are sought in all investigations followed by formal reporting and discussion of the work.

Prerequisite: 1 sem. of College Botany.

(2, 2) 3 credits

**SC 119 General Biology**

A survey of life from the standpoint of man, his structural and behavioral evolution, his functional characteristics, and his relationship to the natural world. The laboratory exercises involve simple investigations of the life processes by utilizing basic research tools. Here too, animal forms are emphasized.

(2, 2) 3 credits

**SC 133 Biology I (Botany)**

The fundamentals of plant science including the processes which activate and govern plant life; anatomy, morphology, physiology, taxonomy, reproduction, genetics, and pathology.

(3, 3) 4 credits

**SC 134 Biology II (Zoology)**

The world of animal life and the processes which activate and govern it; morphology, anatomy, physiology, reproduction and genetics.

(3, 3) 4 credits

**SC 136 Botany**

The same as SC 133 with 1 hour less laboratory time.

(3, 2) 4 credits

**SC 137 Zoology**

The same as SC 134 with 1 hour less laboratory time.

(3, 2) 4 credits

**SC 201 Medical Entomology**

The study of insects and other arthropods that annoy man and animals, transmit diseases, and contaminate stored products; their identification, life histories, mode of disease transmission, and control.

Prerequisite: SC 108.

(2, 2) 3 credits
SC 202 Microtechnique
The preparation of plant and animal tissue for microscopic examination, including the embedding, sectioning, and staining of organs and tissues. The identification of cells and tissues is included. Prerequisite: SC 136 and SC 137. (1, 4) 3 credits

SC 203 Biological Instrumentation
Some of the basic tools of biological research are explored in relationship to the contemporary laboratory. Operational aspects of instruments used in biological assays are presented. Techniques of chromatography, electrophoresis, and centrifugation are investigated. Each instrument is considered within the framework of a simple laboratory exercise. Prerequisites: 1 year of College Biology and 1 year of College Chemistry. (1, 3) 2 credits

SC 204 Entomology II
The identification and control of pests and diseases of plants grown under glass, using latest chemical materials and control equipment. Prerequisite: SC 108. (2, 2) 3 credits

SC 205 Mycology and Plant Pathology
The study of fungi and nematodes; their culture, isolation, identification, life cycles, injuries, and control. Prerequisite: SC 136. (2, 2) 3 credits

SC 206 Research Procedures
The application of previously learned techniques to research. Instructor directed group research problems run concurrently with student designed experiments. Routine responsibility in maintaining a research notebook, data taking, data handling techniques, analysis and reporting results. Techniques of information retrieval and library searching. The biotechnician as applicant and employee. Units on laboratory safety and basic slide rule operations are included. Prerequisite: SC 203. (1, 3) 2 credits

SC 208 Pesticides and Field Research Procedures
The principles of formulating insecticides, herbicides, fungicides, rodenticides, nematocides, and avicides are covered. Pesticide research problems involving the use of chemicals and equipment are stressed. Field trips to various commercial enterprises are included. Special research projects allow each student to select and concentrate in specific areas of pest management including plant pest control, biological control and chemical control. Prerequisite: SC 108. (2, 6) 4 credits

SC 209 Medical Routines
Basic medical office procedures and skills are learned. These include assistance in the treatment rooms, sterilization processes, blood counts, urinalysis, blood pressure and temperature determination, pulse and respiration rates, First Aid Principles and other related activities. Emphasis is placed on understanding the rationale and scientific background to each procedure. (2, 3) 3 credits

SC 212 Weeds and Their Control
The classification and identification of weeds harmful to crop culture. Methods of controlling weeds and the herbicides used. Field study is stressed. Prerequisites: SC 102 or SC 136. (2, 3) 3 credits

SC 221 Introduction to Oceanography
The chemical, physical, topographical and geologic aspects of the sea. The importance of the sea. Field study is included. Prerequisites: CH 107 or permission. (2, 2) 3 credits

SC 223 Principles of Ecology
This course introduces the student to the nature of ecosystems, the organization and dynamics of ecological communities and populations. Prerequisites: 1 year College Biology or permission. (2, 3) 3 credits
SC 225 Parasitology

An introduction to parasites of man and domestic animals with an emphasis on identification, morphology, classification, etiology, life histories and the principles of parasitism.
Prerequisites: Zoology or College Biology.
(2, 2) 3 credits

SC 228 and SC 229 Care and Management of Laboratory Animals

This 2 course sequence provides the students with the essential information required to properly manage and care for laboratory animals. Emphasis is placed on record keeping, sanitation, quarters, breeding, nutrition, and handling of the mouse, rat, guinea pig, rabbit and hamster. Laboratory clinics are held at local hospitals utilizing their research animal facilities.
(2, 4) 3 credits each

SC 234 Marine Botany

The biology of plants in the sea, their life histories, distribution, classification, structure and economic importance. Emphasis on the flora of the Long Island littoral. Field collection and study is included.
Prerequisite: SC 136.
(2, 2) 3 credits

SC 236 Marine Zoology

The classification, identification, life histories and ecology of the marine invertebrates and vertebrates from the protozoa through the cordates. Field collection and study is included.
Prerequisite: SC 228.
(2, 2) 3 credits

SC 238 Industrial and Household Pests

Biology and control of fabric, wood and stored grain pests will be stressed. The use of field trips, guest lecturers, movies and live materials will be incorporated into the course. Fundamentals of the pest control business and the responsibility to the public will be covered.
Prerequisite: SC 108.
(2, 3) 3 credits

SC 241 Environmental Protection I

Survey and analysis of pollutants in the water environment including: sources, identification, effects, fate, persistence, treatment, control, and ultimate disposal. Survey and analysis of pesticides in the environment including: residues in soil, by crops, in water, and in air; minimizing contamination; and effects on wildlife and human health.
Prerequisites: 1 year College Biology and 1 year College Chemistry or permission.
(3, 0) 3 credits

SC 242 Environmental Protection II

Survey and analysis of pollutants in the air environment including: sources, identification, effects, fate, persistence, treatment, control and ultimate disposal. Study of solid waste problems including: municipal refuse, junked cars, industrial and solid wastes, mining and processing wastes and effects on environment.
Prerequisite: SC 241 or permission.
(3, 0) 3 credits

SC 243 Environmental Problems

Various current environmental problems will be examined. Topics will include pesticides, waste disposal, eutrophication, air, water and thermal pollution. The laboratory will allow for in-depth study of these problems through field trips, speakers, and analysis of environmental impact statements.
Prerequisite: SC 223.
(1, 4) 2 credits

SC 245 Principles of Genetics

The mechanisms of heredity in plants and animals including man with emphasis on Mendelian principles, nature and structure of the gene, transmission and action of genes and population genetics. Laboratory studies cover the basic organisms and techniques used in genetic research.
Prerequisites: 1 sem. of College Zoology and 1 sem. of College Botany.
(2, 3) 3 credits
SC 246 Animal Histology
A study of the essentials of general mammalian histology and organology. Also an introduction to some general pathologic processes. Laboratory sessions include the examination of routinely prepared microscope slides.
Prerequisite: SC 137, SC 105.
(2, 3) 3 credits

BUSINESS ADMINISTRATION

BA 101 Accounting I
The principles of accounting are covered through a discussion of the accounting cycle of trading and non-trading businesses. The theory of debits and credits, the recording process, special journals, worksheets and financial statements. The course also covers systems and controls, payroll systems and concepts and principles.
(3, 0) 3 credits

BA 102 Accounting II
A continuation of BA 101 Accounting. Emphasis is on merchandise inventory, depreciation and accruals, the basic problems of partnerships, the principles of corporation accounting, the departmental and branch accounting. The course also covers fund statements and cash flow and financial statement analysis.
(3, 0) 3 credits

BA 111 Business Organization and Management
Gives the student a concise picture of the basic functions of business including those in areas of management, marketing, finance, accounting, etc. Enables the student to acquire a knowledge of the fundamentals needed for more advanced courses.
(3, 0) 3 credits

BA 131 Marketing I
A study of those business activities which are necessary to effect transfers in the ownership and physical distribution of goods and services with reference especially to consumer goods. The importance of the marketing task, place of the consumer in our economic system, and the functions of retailing and wholesaling.
(3, 0) 3 credits

BA 135 Salesmanship
Creative selling and the development of the sales personality. Classification and use of buying motives, analysis of customer types, complete product knowledge, and organization of the sales effort. Individual sales presentations are required.
(3, 0) 3 credits

BA 150 Principles of Insurance
General principles, specific legal doctrines and common policy provisions relating to life, property, and casualty insurance; analysis of types of coverage available for the protection of individuals and business.
(3, 0) 3 credits

BA 151 Business Mathematics
The fundamentals of applied mathematics in the field of accounting, finance, marketing and selling. Topics include interest, bank discount, insurance, and annuities. The use of arithmetic as a managerial tool is stressed.
(3, 0) 3 credits

BA 152 Finance
An introductory course covering the whole field of finance, both public and private. Topics include the monetary and credit system of the United States, the demand for funds, and monetary policies and credit policies. Emphasis is also placed on current problems in the field of finance.
(3, 0) 3 credits

BA 161 Business Law I
An introduction to legal concepts of law and society, the law of contracts, agency, employment, commercial paper, and sales.
(3, 0) 3 credits

BA 162 Business Communications
A study of the role of both oral and written communications in modern business. Emphasis is placed on the preparation of business reports, credit, order, sales claim, collection, adjustment, and routine business letters. Review is provided in the fundamental skills of effective writing.
(3, 0) 3 credits
BA 201 Intermediate Accounting I
(3, 0) 3 credits

BA 202 Intermediate Accounting II
A continuation of BA 201. Emphasis will be on investments, intangible assets, liabilities, current and long-term, and on Stockholder’s Equity, Paid In Capital and Retained Earnings.
(3, 0) 3 credits

BA 203 Cost Accounting
Principles of cost accounting applied to manufacturing industries. The use of cost data and procedures under job order, process cost, and standard cost accounting systems as a tool of management.
Prerequisite: BA 102.
(3, 0) 3 credits

BA 211 Principles of Management
A basic course that recognizes the importance of management as a distinct function and the universality of management principles in the administration of any type of enterprise. The managerial functions of planning, organizing, and controlling are presented as a basis for subsequent courses that emphasize their application in specific areas.
(3, 0) 3 credits

BA 212 Production Management
Presents a survey which informs the student about the development of modern industry and scientific management and will enable him to grasp the operating principles. An important aim is to stimulate interest on the part of the student who has had little background or few intimate contacts with practical industry.
(3, 0) 3 credits

BA 215 Office Management
A study of the perspectives of office management; general considerations of data processing; computing and duplication processes; communications, filing processes; retention processes and records management; the nature, organization, tools of system analysis; managerial functions; employee selection, development, motivation, and supervision. Theoretical problems in office management.
(3, 0) 3 credits

BA 216 Personnel Management
Major personnel functions in business and industry; policies, practices, and operating procedures in employment, training, safety and medical, staffing, and employee benefits.
(3, 0) 3 credits

BA 231 Marketing II
Marketing, planning, research, channels of distribution, management of pricing, management of selling, and management of customer service. Emphasis is placed on industrial goods.
Prerequisite: BA 131.
(3, 0) 3 credits

BA 234 Advertising Principles
The fundamental principles, techniques, and procedures used in modern advertising. Copywriting, selection of media, layout, the role of the advertising agency, and the planning of an advertising campaign.
(3, 0) 3 credits

BA 238 Industrial Purchasing
The principles and techniques of purchasing as they apply in actual practice today. The purchasing area will be treated as a specialized function in the business organization. Constructive aspects of purchasing with emphasis on long-term policies and profit-making opportunities.
(3, 0) 3 credits
BA 240 Consumer Behavior

A study of psychological principles, methods and appeals developed in advertising. Emphasis is placed on the development of a psychological point of view toward advertising.
Prerequisite: BA 234.
(3, 0) 3 credits

BA 251 Investments

Examination of financial literature and facilities available as guides to the proper selection of securities. The approach is from the viewpoint of the individual, including a logical portfolio commensurate with the financial resources of the individual.
(3, 0) 3 credits

BA 260 Statistics

Formulation of decision problems and the use of data which serve as a basis for deciding upon a rational course of action. Statistical populations, decision-parameters, sample selection, probability theory, sampling distribution, risk, error, bias, and control charts.
(3, 0) 3 credits

BA 261 Business Law II

A continuation of BA 161 Business Law I with application of legal principles to personal property, bailments, security devices, partnerships, corporations, real property, estates, bankruptcy, governments and business.
(3, 0) 3 credits

CHEMISTRY

CH 103 Chemistry

Introduction to the basic principles of college chemistry. Topics in organic chemistry are also presented.
Prerequisite: Two years of high school mathematics recommended.
(2, 2) 3 credits

CH 104 Chemistry

An introduction to general and organic chemistry. Topics include atomic theory, chemical bonding, solutions, acid-base theory, quantitative applications of chemical principles, organic nomenclature, functional groups and some basic organic reactions.
Prerequisite: One year of high school chemistry recommended.
(3, 2) 4 credits

CH 105 Introduction to the Biochemistry of Foods

Prerequisite: CH 104.
(3, 2) 4 credits

CH 106 Introduction to Biochemistry

Basic principles of general, organic, and biochemistry are presented. Topics in biochemistry include the structure and functions of carbohydrates, lipids, sterols, amino acids, and proteins; enzymatic actions, digestion, and metabolism.
Prerequisite: One year of successfully completed high school chemistry.
(3, 2) 4 credits

CH 107 General Chemistry

Prerequisite: One year of successfully completed high school chemistry.
(3, 3) 4 credits
CH 110 Introduction to Organic Chemistry

(3, 3) 4 credits

CH 113 College Chemistry

Metric measurements, the states of matter, the nature of the gaseous, liquid and solid states, atomic theory, electronic configuration of the atoms, chemical bonding, molecular structure, equations, stoichiometry, solutions, kinetics, and theories of acids and bases. Prerequisite: One year of high school chemistry recommended.
(3, 3) 4 credits

CH 114 College Chemistry

A continuation of CH 113. Topics discussed include oxidation-reduction reactions, equilibrium involving ionization constants, solubility products, metals, non-metals, transition metals, and nuclear chemistry. Selected topics in Organic and Biochemistry are also covered. Prerequisite: CH 113.
(3, 3) 4 credits

CH 115 General Chemistry

(3, 3) 4 credits

CH 116 General Chemistry

A continuation of CH 115. Solutions and their colligative properties, chemical equilibrium, oxidation-reduction equations, electrochemistry, acids and bases, solubility products, buffer solutions, chemical kinetics, topics in organic chemistry and nuclear chemistry. Chemistry of the representative and transition elements. Prerequisite: CH 115.
(3, 3) 4 credits

CH 204 Biochemistry

Structures, bonding, and reactions of carbohydrates, lipids, sterols, amino acids and proteins, nucleic acids, nucleoproteins, their synthesis and hydrolysis, Enzymatic chemistry, digestion and absorption, and metabolism. The study of specialized tissue. Laboratory work dealing with the above topics. Prerequisite: CH 110.
(3, 3) 4 credits

CH 213 Photographic Chemistry

Instrumentation applied to general chemistry, including the control of temperatures and solutions. Principles of colorimetry, titrimetry, pH measurements, polarography, refractometry, mass-spectrometry, and infrared analysis.
(2, 3) 3 credits

CH 215 Organic Chemistry

Chemistry of carbon compounds. Bonding, stereochemistry, and structural theory. Fundamental reactions of functional groups considered from the mechanistic viewpoint. Aliphatic and aromatic chemistry with stress on methods of preparation and synthesis. Prerequisite: CH 116 or CH 114 with approval of Chemistry Department Chairman.
(3, 3) 4 credits
CH 216 Organic Chemistry
A continuation of CH 215. Topics include aldehydes, ketones, acids, sugars, poly-nuclear hydrocarbons, heterocycles, amino acids and proteins. The principles of important spectroscopic methods including infrared, nuclear magnetic resonance and mass-spectrometry are discussed; and the use of atomic orbitals to explain both physical and chemical properties of compounds. Modern synthetic reactions are also presented.
Prerequisite: CH 215.
(3, 5) 4 credits

CH 240 Environmental Analysis I
Theory of quantitative analytical techniques as they directly relate to environmental applications. Emphasis on theory of gravimetric, volumetric, potentiometric, amperometric, coulometric, and conductance methods of analysis. Laboratory work includes practical application of above theories to determine the chemical components of air, water, foodstuffs, fertilizers, pesticides, and herbicides.
Prerequisites: CH 107, CH 110.
(2, 3) 3 credits

CH 241 Environmental Analysis II
Theory behind instrumentation involved in environmental analysis. Topics to be covered include absorption spectroscopy (UV, Vis, IR), scattering of electromagnetic radiation, mass spectrometry, gas chromatography, atomic absorption. Laboratory work involves use of the application of these techniques in analysis of water, air, and soil pollutants.
Prerequisites: CH 240.
(2, 5) 3 credits

CIVIL TECHNOLOGY AND CONSTRUCTION TECHNOLOGY

CT 103 Surveying I
Training and use of the basic surveying instruments—tape; level; transit. Trigonometric and differential leveling; level net adjustment. Profile leveling and cross-sectioning. Azimuth, bearing and angle determination by repetition procedures. Angular closures. Stadia and stadia reduction of inclined sights. Topographic mapping by transit stadia and plane table methods.
(2, 3) 3 credits

CT 104 Structural Drafting
Introduction to architectural and structural working drawings. From given design data, representative engineering working drawings and shop detail drawings for a steel building are developed. The latter part of the semester is devoted to familiarization and reinforced concrete working drawings and the development of typical placing drawings and details. AISC and ACI detailing standards are followed for steel and concrete.
(2, 3) 3 credits

CT 106 Statics
Prerequisite: CT 103.
(3, 0) 3 credits

CT 107 Surveying II
Continuation of CT 103. Traverse closures and adjustments, State coordinate systems. Error analysis. Area determination, earthwork volumes, land surveying, photogrammetry. Field work includes work with aerial photographs.
(2, 3) 3 credits

CT 111 Graphics
Drafting techniques, use of instruments, lettering, freehand sketching, and perspective are covered in conjunction with the elements of descriptive geometry. Orthographic projection, true lengths, true size and shape, auxiliary views and rotation are included. Methods of reproduction of drawings.
(1, 2) 2 credits

CT 112 Construction Materials
An introduction to the basic properties and uses of materials employed in Civil and Architectural construction. Timber, ferrous and non-ferrous metals, concrete, clay products, plastics, and soils are covered. A system of guest lecturers, student research and reports, films and regularly scheduled lectures are used, as well as laboratory demonstration. Design mixes in asphalt and concrete are included.
(1, 2) 2 credits
CT 201 Architectural Design I
Drafting standards, techniques and creative design principles related to the field of architecture. Freehand drawing. A design problem in residential architecture with the development of research notes, preliminary studies and architectural presentation drawings.
(2, 3) 3 credits

CT 202 Construction Estimating
Development of a systematic procedure to take off quantities from working drawings for a typical project. Current wage rates and material costs, percentages, proportions and square foot methods of estimating from the point of view of the general contractor. Trades are covered in relation to coordination and workmanship. Cost of the project is summarized by applying overhead, expenses and profit to the sum of labor and material costs.
Prerequisite: CT 218.
(1, 2) 2 credits

CT 203 Route Location and Design
The principles of geometric route location and design. Circular curves, vertical curves, spiral curves, design speed criteria, stopping sight distance, superelevation, earthwork computations for roads and pipelines.
Prerequisite: CT 107.
(2, 3) 3 credits

CT 204 Route Surveying
The principles and procedures for route surveying related to highway design and construction. Circular curves, vertical curves, compound and spiral curves cross sections, earthwork, determination of meridian by astronomical observations. Computer programming. These are applied to practical problems in field projects.
Prerequisite: CT 107.
(1, 3) 2 credits

CT 205 Strength of Materials
Simple stresses; elasticity; temperature stresses; torsional stresses; combined stresses; shear and moment diagrams for beams; moments of inertia of unsymmetrical sections; flexural and shearing stresses in beams; deflections in beams. Use of AISC manual.
Prerequisite: CT 106.
(3, 0) 3 credits

CT 206 Construction Management and Superintendence
An analysis of a contractor's operation from the initial purchase of land to the completion of a project. A study of the contractor's relationship to architect, engineer, and client, including land purchase, development, code, and zoning requirements. Trades are considered with respect to coordination, progress charts, equipment, sub-contracts, and architectural specifications. Field trips to construction projects.
(2, 2) 3 credits

CT 207 Architectural Design II
Development of working drawings and model of previously designed residence. A creative design problem of a commercial, industrial, or public building. Development and presentation of research, preliminary studies, architectural renderings, and a model of this project.
Prerequisite: CT 201.
(2, 3) 3 credits

CT 208 Civil Design Case Studies
Students make case studies involving design criteria, design plans and computations, quantity and cost estimates for civil design projects.
Prerequisite: CT 203.
(2, 3) 3 credits
CT 214 Construction Methods (Civil)

Continuing study of soils as a construction material involving both theory and laboratory. Asphalt and Portland cement as materials applied in Highway Construction. Construction methods site preparation; subgrade construction; flexible and rigid pavement types and drainage installation. Use of Benkelman Beam and other quality control instruments. Prerequisite: CT 112.
(1, 3) 2 credits

CT 218 Construction Methods (Architectural)

A drafting course where the methods of assembling and detailing construction materials are studied. Bearing walls of frame, masonry and concrete are included as are curtain walls of various contemporary materials. Foundation details and roof framing systems, various flashing methods, and opening treatments in several materials are presented. Prerequisite: CT 112.
(1, 2) 2 credits

CT 219 Hydraulics of Drainage

Introduction to basic theory of hydraulics of flow in pipes and open channels including the hydrology of drainage areas and storm water runoff. Design of drainage systems including the determination of pipe sizes and drainage structure will be emphasized. Prerequisite: CT 106.
(2, 0) 2 credits

CT 220 Elements of Structure (Civil)

Application of strength of materials to elementary structural design in steel and concrete. Elastic theory in steel is emphasized, with an introduction to ultimate strength in concrete. Loadings and structural elements commonly encountered in highway and bridge work are used for analysis and design. Latest codes are used. Prerequisite: CT 206.
(3, 2) 4 credits

CT 221 Pavement Design

Discussion of theoretical and empirical pavement design methods for flexible pavements. Methods covered include CBR, Triaxial methods. N. Dakota Cone Bearing, Group Index, Asphalt Institute, WASHO and AASHO road tests are studied. Design procedure utilizing coefficients of relative performance from AASHO is developed. Design of Asphalt overlays utilizing the "Benkelman Beam". Rigid pavement methods are discussed including thickness, steel reinforcing and joint design. Prerequisite: CT 112.
(3, 0) 3 credits

CT 222 Elements of Structure (Architectural)

This course is similar to CT 220 except that loadings and structural elements commonly encountered in buildings are used for analysis and design. Prerequisite: CT 206.
(3, 2) 4 credits

CT 223 Development of Architectural Design

A study of the development of building design from the Hellenic Period through the major historical periods to the present. Emphasis is on the evolution of the forms derived from indigenous technologies of the periods surveyed. Prerequisite: CT 206.
(2, 0) 2 credits

CT 224 Elementary Photogrammetry

(1, 3) 2 credits
COMMUNITY SERVICE ASSISTANT

CS 101 Foundations of Social Work
The concepts involved in the various aspects of social work are examined, social case-work, where the importance of the approach to the individual is stressed; social group-work, where the role of the professional in helping others, using the group process, is discussed; community organization, where the principles of this aspect of social work are evaluated; and in social planning, where community improvement planning methods are studied.
(3, 0) 3 credits

CS 102 Community Social Service Agencies
This course presents a general overview of the community agencies, public and private, which provide social services for adults and children. The opportunity is provided for visiting and observing typical agencies such as the Nassau and Suffolk Departments of Social Service, the Family Service Association of Nassau County, Central Islip State Hospital and the Luther E. Woodward School for Emotionally Disturbed Children.
(1, 3) 2 credits

CS 103 Introduction to Skills and Techniques in Social Work
This course presents an introduction to the various skills, techniques and methods in the field of social work. It includes consideration of interviewing methods, and an examination of budgeting and financial management techniques in case work. It also reviews the basic processes used in each of the areas of social work, individual counseling in case work, the group methods utilized in group work, and the techniques used in community organization.
(3, 0) 3 credits

CS 201 Field Experience I
The field experience course provides the opportunity for the student to enlarge his scope through direct service in agencies providing help to clients, under professional supervision. The student will be enabled to integrate his educational understanding with the field experience, and learn how he relates to people. The field experience should be with one agency for the two semesters.
(1, 6) 4 credits

CS 202 Field Experience II
Part two of a two-semester course. See description for CS 201.
(1, 6) 4 credits

CS 203 Organization of Community Welfare Services
An understanding of the nature of community welfare services, both public and private, will be developed, through seeing social welfare as a social institution. Various areas of public welfare services will be studied, as well as related areas of private social welfare services. The course will review the relationship between governmental and private services.
(3, 0) 3 credits

CS 204 Community Mental Health Programs and Planning
The current programs and the future planning for those who have personal, emotional and mental problems are examined in this course. The concepts of community planning for those who have these problems, as well as for preventive mental health for all, are reviewed. The contributions of each of the members of the mental health team, social worker, psychologist and psychiatrist, are considered. The various types of treatment in the mental health field to which the community service assistant will be exposed are also discussed.
(3, 0) 3 credits
DP 104 Algorithmic Processes I
Introduction to analytical problem solving methods using a digital computer. The idea of an algorithm as a step-by-step, well defined procedure for solving a problem is developed. Flowcharting as a graphic description of an algorithm. Programming language as the method of describing the algorithm to a computer. Both iterative and recursive algorithms are developed.
(3, 2) 4 credits

DP 106 Algorithmic Processes II
Introduction to algorithms for numerical and non-numerical calculations, statistics, business data processing including disk and tape applications. Programming of simulated business and industrial problems.
Prerequisites: DP 101 and DP 104.
(3, 2) 4 credits

DP 108 Principles of Automatic Accounting
An examination of how the principles of accounting are being integrated with tabulating equipment and the computer. A problem approach will be followed integrating manual accounting flow, punched card systems and comprehensive computer operations.
(3, 0) 3 credits

DP 109 Cost Analysis
Study of the techniques of differential cost and revenue analysis and alternative capital expenditure determination as well as other management decision-making problems. Use of data processing and computer applications will be stressed for determining financial data flow and costs.
Prerequisite: DP 108.
(3, 0) 3 credits

DP 116 Machine and Assembly Language Programming
Fundamentals of machine and assembly language programming including data representation and manipulation, storage addressing and allocation, base register and displacement concepts, arithmetic and logic operations and interaction control techniques. Introduction to IOCS and programming macros.
Prerequisite: DP 101, DP 104.
(3, 0) 3 credits

DP 200 Data Processing for the Business Student
This introductory course is designed to provide an overview of the sum total of devices and systems made by man for the use of man in business. Topics will be decision making, including optimization and modeling; computers including organization and programming concepts; and systems, including dynamics, feedback and stability.
(3, 0) 3 credits

DP 202 Elements of Digital Computer Programming
Fundamentals of computer structure and the use of the computer as a symbol manipulating device and the processing of information. Basic flowcharting and algorithm manipulation using FORTRAN. Practice in formulating data processing problems and statistical analysis of business problems.
Prerequisite: BA 102.
(3, 0) 3 credits

DP 204 System Analysis and Design
Systems definition and determination; data capture and recording; file organization and processing; documentation and code design; system control and timing; implementation and measurement of performance and costs; study of batched job and realtime systems. Projects will be assigned and guided in laboratory.
Prerequisite: DP 206.
(2, 2) 3 credits

DP 206 Control and Service Programming Systems
Study of control programs—including job control programs and supervisors, data management concepts including IOCS routines; study of service programs—including compilers, librarians, linkage editors, and utilities. Applications of these concepts by using DOS, including "hands-on" communication experience with supervisory program in laboratory.
Prerequisite: DP 116, DP 106.
(2, 2) 3 credits

DP 220 Cobol Programming
Study of COBOL language including file manipulation, sub-routines, table processing, disk and tape utilization.
Prerequisite: DP 106.
(3, 2) 4 credits
DP 225 Business Application Programming

Case study approach with programming assignments. Concentration will be on problem-solving with examples from accounting, inventory, and management. Students will be given beginning to end responsibility for a typical programming project. Laboratory experiences include "hands-on" experimenting and documenting the complete project.
Prerequisite: DP 220.
(3, 2) 4 credits

DP 226 Data Structures

Basic concepts of data. Linear lists, strings, arrays. Representation of trees and graphs. Storage systems and structures, and storage allocation and collection. Symbol tables and searching techniques. Formal specification of data structures, data structures in programming languages, Fortran IV language laboratory.
(3, 2) 4 credits

DP 229 Numerical Analysis

The solution of equations, interpolation, and approximations, numerical differentiation and integration. The solution of linear systems by direct and iterative methods, matrix inversion. Using Fortran IV and PL 1, laboratory experiments for problem-solving and programming of selected problems.
Prerequisite: MA 135.
(3, 2) 4 credits

DP 230 Systems Simulation

Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to queuing theory and stochastic process. Simulation methodology including generation of random numbers, design and analysis of simulation experiments.
(3, 0) 3 credits

DP 240 Statistics and Algebraic Language Programming

Algebraic language programming using statistical problems. Fundamentals of statistical decision-making, including elements of descriptive statistics—central tendency and dispersion, time-series analysis, correlation and regression methods. Approaches and differences between raw data and frequency array analysis by computer. Introduction to probability theory and sampling concepts.
Prerequisite: DP 206.
(3, 0) 3 credits

DENTAL HYGIENE

DH 101 Dental and Oral Anatomy

Fundamentals of tooth form and function. The student must draw and carve individual teeth to familiarize herself with the anatomical details. Supporting structures of the mouth and occlusion.
The identification of extracted teeth.
(3, 3) 4 credits

DH 105 Dental Roentgenology

To acquaint the student with the nature of the ionizing radiation; the history of x-rays, their production and properties. Theory and practice of exposing, processing, and mounting dental roentgenograms; radiation dosage, radiation hazards, and protective devices for patient and operator. Discussion of extra-oral x-ray techniques, including lateral plates and panoramic film is included. Emphasis is placed on the identification of anatomic landmarks and differentiation of these from conditions which indicate abnormality or disease. Discussion and application of the latest recommendations of the National Committee on Radiation Protection and Measurements and other safety devices.
(2, 2) 3 credits

DH 108 Clinical Dental Hygiene I

Theory, concepts and practical applications of preventive measures as they relate to the practice of dental hygiene. Student will be taught techniques of instrumentation and theories of preventive dentistry.
(2, 4) 2 credits
DH 109 Clinical Dental Hygiene II
A continuation of the practical applications of dental hygiene techniques with supplemental lectures related to the clinical practice of the dental hygienist.
Prerequisite: DH 108.
(2, 6) 3 credits

DH 110 Dental Office Procedures
To acquaint the student with various dental procedures, materials and devices commonly used in dental practice. Emphasis will be placed on the physical and chemical properties of dental materials and how they affect the care and manipulation of the materials in question. Emphasis will also be given to office clerical procedures, job interviews, psychology and motivational aspects of handling dental patients. Stress will be placed on relating the above to the clinical practice of the dental hygienist as well as performance of basic dental laboratory procedures.
(2, 2) 3 credits

DH 201 Clinical Dental Hygiene III
Extended clinical training in hospitals and clinics both on and off campus, with pertinent lectures and discussions on recent innovations.
Prerequisite: DH 109
(1, 12) 5 credits

DH 205 Pathology
The fundamentals of microscopic and gross pathology; discussion of general pathologic processes; diseases of the highly specialized dental and periodontal tissues; their etiology and prevention.
Prerequisites: SC 105, SC 109.
(2, 0) 2 credits

DH 206 Clinical Dental Hygiene IV
Extended clinical training in hospitals and clinics both on and off campus, with pertinent lectures and discussion on recent innovations.
Prerequisite: DH 201
(1, 12) 5 credits

DH 208 Public Health
Scope and activities of Public Health programs with specific reference to various health problems and special emphasis on dentistry in public health.
(2, 0) 2 credits

DH 209 Pharmacology
The principles of drug actions and the uses of more important drugs, especially those used in dentistry. The principles of prescription writing.
(2, 0) 2 credits

DH 210 Periodontics
Study of the normal periodontium, classification of, and etiology of periodontal disease. Principles of periodontology as well as correlation to basic sciences. Special emphasis on the preventive and motivational aspects within the scope and responsibility of the dental hygienist.
(1, 0) 1 credit

DH 211 Periodontics
Continuation of DH 210 with more emphasis on Periodontal pathology and instrumentation.
(1, 0) 1 credit

DH 220 Dental Specialties
Through lecture and discussion the etiology, prognosis, and treatment of various dental specialties will be considered. The emphasis is placed on the role and function of the dental hygienist in the specialty areas.
(2, 0) 2 credits

ELECTRICAL TECHNOLOGY

ET 100 Introduction to Electronics
This course is designed to give the student an overall look into electronics technology with the opportunity to use basic systems in a simplified fashion. Use of test equipment and investigating electronics systems and subsystems by observing input and output waveforms and any associated mechanical action. Emphasis is placed on understanding the characteristics of subsystems as building blocks for a complete system. The lectures are devoted to demonstrations, descriptions of electronic systems, and the discussion of job responsibilities and opportunities in the electronics field.
(1, 2) 2 credits
**ET 101 Electrical Circuits**

Alternating current circuit theory. Time
A basic course in direct current theory.
Current and voltage sources in resistive
series, parallel, and combination circuits.
Superposition theorems; Kirchoff's laws;
loop and nodal analysis; Thevenin and
Norton equivalents; R-C and R-L cir-
cuits; basic instruments. The associated
lab offers practical circuitry and the con-
firmation of theoretical principles.
Corequisite: MA 124.
(4, 3) 5 credits

**ET 102 Electricity I**

Direct current fundamentals involving:
series, parallel, and combination circuits,
capacitance, inductance, magnetic proper-
ties and circuits, d-c instruments, and d-c
motors.
(2, 3) 3 credits

**ET 103 Electrical Circuits II**

donman and phasor representation of sin-
usoidal voltages and currents. Analysis of
series, parallel, combination, R-L, R-C,
R-L-C, and resonant circuits. Frequency
response; mutual inductance; and trans-
fomers. Application of Fourier series.
Prerequisite: ET 101.
(4, 3) 5 credits

**ET 104 Electricity II**

Alternating current principles involving
voltage, current and power relations in
single phase circuits containing resistance,
capacitance, inductance, and impedance;
series and parallel resonance, and ele-
mentary analysis of polyphase circuits.
Prerequisite: ET 102.
(2, 3) 3 credits

**ET 106 Basic Semiconductor Circuits**

Fundamentals of solid state diodes and
junction transistors. Devices and circuits
are described by their volt-ampere, and
input-output transfer characteristics.
Analysis of basic diode circuits and single
stage class A amplifiers. D.C. biasing and
Q-point calculations; and the use of in-
cremental device models for input-output
impedance and current, voltage and
power gain.
Prerequisite: ET 101.
(3, 3) 4 credits

**ET 116 Electronic Drafting**

Principles and techniques of drafting app-
llicable to electronic equipment—sche-
matics, graphs, simple mechanical layouts,
and printed circuit diagrams.
(0, 2) 1 credit

**ET 212 Electronics**

A basic electronics course oriented to
components and circuitry of the photo-
graphic equipment field. Included are
fundamental studies of vacuum tubes and
semiconductor transistors, zener diodes,
silicon controlled rectifiers, integrated cir-
cuits; also photosensitive semiconductors
and energy cells.
(2, 3) 3 credits

**ET 232 Amplifiers**

Junction and field effect transistors and
vacuum tube parameters and models.
Analysis of RC coupled small signal am-
lifiers. Single ended and push-pull
power amplifiers. Q-point and gain sensi-
tivity to temperature and parameter vari-
tions, and stabilization techniques.
Prerequisites: ET 103, ET 106.
(3, 3) 4 credits

**ET 233 Digital Electronics**

Logic design of combinational and se-
quential circuits; minimizing techniques,
integrated circuits, number systems, arith-
etic operations, timing and switching
techniques, counters, sequence generators,
D/A and A/D convertors, shift register
applications, and digital information stor-
age and control; gating circuits and mul-
tivibrators.
Prerequisites: ET 103, ET 106.
(3, 3) 4 credits

**ET 234 Applications of Linear
Integrated Circuits**

Principles of feedback and its applica-
tions. Operational Amplifiers. Linear
integrated circuits; difference amplifiers
and multistage direct coupled amplifiers.
Frequency response of amplifiers. Power
supplies, filters, and regulators.
Prerequisite: ET 232.
(4, 3) 5 credits
ET 235 Communication Electronics

Tuner circuits and tuned amplifiers. Sinusoidal oscillators. Amplitude and frequency modulation, detection and applications. Analysis of typical communications systems. Pulse characteristics of transmission lines.
Prerequisite: ET 232.
(4, 3) 5 credits

ET 236 System Construction and Analysis

Construction, testing and circuit analysis of a solid-state system. Emphasis is on providing a wide range of experiences in techniques, procedures, selection and use of test equipment in troubleshooting and analyzing performance of individual circuits within an overall system, as in a typical radio receiver.
Prerequisite: ET 232.
(0, 3) 1 credit

ENGINEERING SCIENCE

ES 201 Engineering Mechanics, Statics

A fundamental and rigorous vectorial approach to mechanics. The elements of Vector Algebra, and their operations will be reviewed and given physical insight. Equations of Equilibrium, Equivalent Force Systems, and Frictional Forces will be covered in depth. Properties of Surfaces; Introduction to Continuum and Variational Mechanics for static systems.
Prerequisites: PH 151; concurrent MA 152.
(3, 0) 3 credits

ES 202 Engineering Mechanics, Dynamics

A vectorial approach to dynamics of particles, and rigid bodies. Vector integration and differentiation. Methods of Momentum, Energy Methods, Relative Motion, Motion of a Body about a Fixed Point; An introduction to Tensor notation and use via Inertia Tensor; Elementary vibration theory, Kinematics of Particles and rigid bodies; Euler's equations of motion for 3 dimensional cases is developed and illustrated.
Prerequisites: ES 201; concurrent MA 153.
(3, 0) 3 credits

ES 206 Engineering Circuit Analysis

A first course in electrical circuit analysis. Non-electrical circuits are examined in terms of their electrical analogues. Definition of active and passive circuit elements; electric power, energy, and Kirchhoff's circuit laws; general loop and nodal analysis; specific characteristics of linear systems and associated network theorems; response of source-free single and double energy linear circuits; response of first and second-order linear circuits to step, ramp, impulse and sinusoidal excitations; the impedance transform and the sinusoidal steady state.
Prerequisites: PH 152; concurrent MA 152.
(4, 0) 4 credits

ES 207 Engineering Circuit Analysis

A continuation of ES 206 as applied to first- and second order linear systems. The sinusoidal steady state and the exponential forcing function; basic transfer functions; pole-zero analysis and Bode plots for non-resonant, resonant, and magnetically coupled circuits; frequency response and its relation to system transient response; the Fourier series and its applications; Laplace transforms and their applications.
Prerequisite: ES 206.
(3, 0) 3 credits

ES 208 Engineering Circuit Analysis Laboratory

An experimental laboratory associated with ES 206 and ES 207 theory courses.
Prerequisites: ES 206; ES 207 concurrent.
(0, 3) 1 credit

ES 211 Engineering Circuit Analysis (non-EE majors)

The study of the basic concepts, laws, and techniques underlying linear electrical and mechanical circuits and systems. Models are developed for both mechanical and electrical systems and the response of these is analyzed in terms of their transfer functions using the Laplace transformation and/or phasor techniques for different excitations. The analogues between the electrical and mechanical systems are stressed and the student is introduced to analogue simulation and the analogue computer.
Prerequisites: PH 152, concurrent MA 152.
(3, 0) 3 credits
ES 212 Engineering Circuit Analysis Lab. (Non-EE majors)

Laboratory experiments associated with the material of ES 211 Engineering Circuit Analysis.
Prerequisite: ES 211 concurrent.
(0, 3) 1 credit

ES 213 Mechanics of Deformable Bodies

This course embodies the study of the general concepts of stress and strain, basic laws of elasticity, elementary stress and strain analysis. The special cases of plane stress and plane strain, principal stresses, stress transformations, Mohr's circles of stress and strain, torsional stresses, combined stresses, thin-walled membranes, shells, rings and tubes, thermal stresses, shear and bending stresses in beams, shear and bending moment diagrams, unsymmetrical bending, shear center, curved beams, displacements by double integration and singularly function conjugate beam, superposition, method of virtual work, Castigliano's theorem and general strain energy methods, analysis of statically indeterminate beams, Euler's critical stress in long columns, Secant formula for columns, design formulas for intermediate columns, basic theories of inelastic action, impact, fatigue, creep, relaxation, stress concentrations, practical design problems and failure theories.
Prerequisites: Statics ES 201; concurrent MA 153.
(4, 0) 4 credits

ES 214 Introduction to Computers

This course introduces the necessary techniques needed for understanding the digital computer and applying it to the solution of engineering science problems. The course covers the development of the computer, the logic of data flow within the computer, the associated hardware facilities, Fortran language, programming concepts and finally mathematical applications. Throughout the course the student continually uses the available computing facilities in conjunction with the class work.
Prerequisites: Preceded by or concurrent with MA 150.
(3, 0) 3 credits

ENGLISH AND HUMANITIES

English

EN 100 English Composition
Expository writing by students is the major concern of the course. Emphasis is placed on the use of acceptable patterns of English and the application of rhetorical principles. The form and purpose of the research paper are studied.
(3, 0) 3 credits

EN 101 Introduction to Literature
Short stories, poetry, plays, novels and essays are read. Papers are written on forms, techniques, and themes of literature.
(3, 0) 3 credits

EN 102 American Literature: Colonial Period to Civil War
A survey of American literature from its beginnings in Colonial times to the end of the Civil War. Representative selections from major writers are read and discussed with a view to discovering trends and developments in the American literary tradition. (offered in fall)
(3, 0) 3 credits

EN 103 American Literature: Post Civil War to the Present
From the emergence of realism at the end of the Civil War, through naturalistic writers of the '20's and '30's and the present. Interpretation of major writers and they reflect the intellectual, social and political background of their times. (offered in spring)
(3, 0) 3 credits

EN 104 English Literature: Old English to the 18th Century
A survey of English literature from the beginnings to neo-classicism. Special consideration is given to the writings of the Anglo Saxons, Chaucer, the Elizabethans, Milton and Dryden. English history, religion, and philosophy are studied as they relate to literature. (offered in fall)
(3, 0) 3 credits
EN 105 English Literature: 18th Century to the Present

The neo-classicists: Pope, Swift, and Johnson: romantics, Byron, Shelley, Keats, and Wordsworth; Victorians: Tennyson, Browning, and Arnold; twentieth-century writers; Yeats, Joyce, and Eliot are read. Emphasis is placed on the development and continuity of the literary tradition. (offered in spring)
(3, 0) 3 credits

EN 106 World Literature

Readings in English of significant works representative of the cultures of Europe, South America, Africa and Asia. Examples of major forms of expression, written and oral, will be confronted, with particular emphasis given to discovering the varying approaches men have used to solve the critical problems of their existence. (offered in fall)
(3, 0) 3 credits

EN 107 World Literature

A continuation of EN 106 World Literature. (offered in spring)
(3, 0) 3 credits

EN 109 The Short Story

An appreciation of the short story as literature through reading short fiction, both American and foreign, that varies widely in theme and form. An understanding of critical theory on the development of the short story. (offered in fall)
(3, 0) 3 credits

EN 119 Introduction to Poetry

A survey of English language poetry. Selected works of both traditional and contemporary poets are analyzed and discussed. (offered in spring)
(3, 0) 3 credits

EN 120 Black Literature and the American Tradition

Representative works of Black American writers from pre-Civil War to the present day are read and discussed. The historical and social background are examined. Black literature is considered as an expression of a people and as a part of the American literary tradition. (offered fall and spring)
(3, 0) 3 credits

Humanities

HU 100 Introduction to Philosophy

Basic concepts and issues of philosophy. Major topics considered are the problems of knowledge, logic, ethics, aesthetics, and metaphysics. (offered in fall)
(3, 0) 3 credits

HU 101 History of Philosophy

Significant contributions in the history of philosophy. Selected readings from the works of major philosophers from the Greeks to the present. (offered in spring)
(3, 0) 3 credits

HU 110 History of Music: Beginnings Through Baroque

A survey of music literature from its beginnings to the Baroque period. The styles of music such as monophony and polyphony are studied to understand how they were used in Pre-classical, Classical, and Baroque periods. (offered in fall)
(3, 0) 3 credits

HU 111 History of Music: Romantic Through Modern

A continuation of HU 110. The styles of music such as homophony and heterophony are studied to understand how they were used in the Romantic and Modern periods. (offered in spring)
(3, 0) 3 credits

HU 112 Voice Production and Sight Singing

Presents the techniques of Bel Canto singing. Through the use of syllables and sequentials the students develop the techniques and abilities to read music at sight. (offered in fall)
(3, 0) 3 credits

HU 113 Elementary Music Theory

An introduction to the symbols of music and how they are used. The study of keys, scales, modes and triads will lead to the harmonization of melodies. Each student is encouraged to write an original composition as a partial fulfillment of the requirements of the course. (offered in spring)
(3, 0) 3 credits
HU 120 Basic Drawing
Includes an examination of the principles of depicting illusory form and dimension through the use of perspective, light and shade, and color. Students practice drawing techniques to fortify their understanding of art forms.
(2, 3) 3 credits

HU 121 Basic Design
The principles of combining line, form and color into meaningful patterns. Two and three dimensional exercises are included. Three dimensional exercises may serve a student who wishes to study sculpture at a later date.
(2, 3) 3 credits

HU 122 Painting
Students utilize the principles learned in basic courses. Representational and abstract painting are practiced. Various media are used. (offered in spring)
(2, 3) 3 credits

HU 123 Art History
An examination of art based on principles and techniques established in drawing and design courses. The various uses to which these principles and techniques have been put in man's artistic history are the concerns of the course.
(3, 0) 3 credits

HU 130 Speech
A course designed to develop skill in the preparation and delivery of expository and persuasive speeches, to provide experience in committee action and group discussion, and to improve the student's voice and diction. (offered fall and spring)
(3, 0) 3 credits

HU 132 Oral Interpretation of Literature
Theory and practice of effective oral reading based on analysis of content. Selection, analysis, rehearsal and presentation of literature: prose, poetry, and drama. (offered in spring)
(3, 0) 3 credits

HU 133 Introduction to the Theater
A survey of the elements of theatrical art, including script, acting, scenery, lighting, costumes, and the roles of the various members of professional production: producer, director, actor, and audience. Representative plays, playwrights, and styles from ancient Athens to off-Broadway are examined. (offered in fall)
(3, 0) 3 credits

HU 134 Play Production
Principles and techniques of play production from script selection to performance: including casting, rehearsals, set design, lighting, costumes, make-up, theatrical management. (offered in spring)
(3, 0) 3 credits

FOOD PROCESSING TECHNOLOGY

FT 101 Food Processing
An introduction to food processing and preservation techniques, this course includes laboratory practice in canning, freezing, freeze drying, ice cream and cheese making, milk processing (pasteurization, homogenization, clarification) and jelly manufacturing. All classes use standard equipment for the particular training and use sufficient raw material to provide a clear understanding of the processes involved. Where applicable quality control techniques are directly applied. Quality, grades and standards, yield and composition, packaging and consumer acceptance are discussed and analyzed.
(2, 3) 3 credits
FT 102 Food Preparation

The purpose of this course is to introduce to the student the basics of food preparation, and determine through lecture and laboratory assignments how and why foods react as they do under various conditions. Preparing foods to attain the best quality and yield possible is stressed as a primary concept. Topics such as proper storage and transportation of foods, govt. grades and standards and sanitation are studied and applied. In addition, costs, consumer acceptance, and nutritional value of foods are studied and evaluated.

(2, 3) 3 credits

FT 107 Principles of Nutrition

The basic concepts of human nutritional needs; proteins, carbohydrates, fats, minerals, vitamins for the infant, adolescent, adult and elderly. Each student will learn how to apply the basic principles of nutrition to himself and others.

Prerequisite: CH 104.

(3, 0) 3 credits

FT 109 Principles of Nutrition (Nursery Education)

Same as FT 107 except Chemistry is not required. With special emphasis on feeding young children.

(3, 0) 3 credits

FT 211 Dental Nutrition

The fundamental principles of normal nutrition; the functions of various nutrients and their sources, deficiencies, food values, and the application of nutrition to dental practice.

Prerequisite: CH 106z.

(2, 0) 2 credits

FT 201 Dairy Manufacture

The commercial manufacture of ice cream, sherbets and ices; ingredients used and their effect on quality of the product; standardization of the ice cream mix, freezing and hardening equipment, batch freezer, continuous and soft serve freezers. The manufacturing, packaging and merchandising ice cream and frozen desserts. Butter making, concentrated milk solids, vacuum pan evaporation of various foods and milk. The use and theory of Freeze-Drying and study of the techniques of freeze-drying foods and other products.

(2, 3) 3 credits

FT 202 Food Processing Equipment

Basic mechanical principles; power transmission; electrical power and equipment, hydraulics and pumping; heat measurement, transfer, and control; steam and its use in the food plant; principles of refrigeration; insulation and cold storage rooms; heaters-coolers and heat exchange equipment.

(2, 2) 3 credits

FT 203 Pre-Cooked Frozen Foods

The processing of fresh food materials purchased at retail into prepared or precooked convenience frozen foods. Pies, cakes, biscuits, rolls, entrees of meat, fish and poultry, salads and nationality Specialty food items are made and the cooking techniques studied. Comparisons are drawn of items processed using measurements vs weight, ingredient and cost percentages are calculated; rudiments of marketing are studied as well as packaging. Point of purchase, and advertising of food items.

Prerequisite: FT 102.

(2, 3) 3 credits

FT 204 Commercial Processing of Pre-Cooked & Specialty Convenienced Frozen Foods

Based on cooking fundamentals acquired in FT 203 pre-cooked and Specialty frozen food items are processed in quantity. Considering consumer interests and demands foods chosen to be processed are of particular interest to the convenience food industry. Problems dealing with quantity, uniformity, consistency, mass, heat transfer, wholesale purchasing, markups and margins advertising and marketing are studied and applied to specific food items manufactured in the laboratories. Food Plant visits, interviews with food officials.

Prerequisite: FT 102 & FT 203.

(2, 3) 3 credits


FT 205 Dairy and Fermented Foods

Manufacture of cultured milk products; sour cream, buttermilk, yogurt, propagation of cultures, freeze-drying cultures. Making of Cheddar cheese, Blue cheese, Cottage cheese and Cream cheese. Fermentation of Cucumbers, Sauerkraut and fruit juices. Aging of fermented food products, and the organolyptic analysis of fermented foods.

Prerequisite: SC 111.

(2, 3) 3 credits

FT 206 Quality Control of Foods

Special tests on food products such as Babcock test, acidity test, hydrometer tests, moisture, solids, salt, ash, and other extraction fats. Collecting samples, care and preparation of samples. Enzymatic tests on milk and fresh food products. Federal and State standards for food products. Special problems of production.

Prerequisite: SC 111, CH 105.

(2, 2) 3 credits

FT 208 Salesmanship

The fundamentals of selling with application to the sale of foods, food machinery, and motivational advertising; the salesman's opportunities, responsibilities, duties, knowledge required, and experience necessary for success; practice in applying and demonstrating sales techniques.

(3, 0) 3 credits

FT 211 Dental Nutrition

The fundamental principles of normal nutrition; the functions of various nutrients and their sources, deficiencies, food values, and the application of nutrition to dental practice.

Prerequisite: CH 106.

(2, 0) 2 credits

FL 100 French I (Elementary)

A course in the four basic skills of speaking, understanding, reading, and writing French. The audio-lingual technique is employed in conjunction with the frequent use of the electronic language laboratory. Conversational French is emphasized.

(3, 0) 3 credits

FL 101 French II (Elementary)

A continuation of French I.

Prerequisite: French I or an equivalent course of study and permission of the department chairman.

(3, 0) 3 credits

FL 102 French III (Intermediate)

A continuation of the four basic skills of French. Primary emphasis is reading non-technical material in French for understanding and vocabulary development.

Prerequisite: French II or an equivalent course of study and permission of the department chairman.

(3, 0) 3 credits

FL 103 French IV (Intermediate)

A continuation of French III with more emphasis on reading literary material in French and a review of French structural grammar by the explication de texte method.

Prerequisite: French III or an equivalent course of study and permission of the department chairman.

(3, 0) 3 credits

FL 104 French V (Advanced)

A brief introduction to French literature and a particular in-depth study of a period or genre of French literature. French is the primary mode of communication in this course.

Prerequisite: French IV or an equivalent course of study and permission of the department chairman.

(3, 0) 3 credits

FL 105 French VI (Advanced)

A continuation of French V.

Prerequisite: French V or an equivalent course of study and permission of the department chairman.

(3, 0) 3 credits

FL 111 German I (Elementary)

A course in the four basic skills of speaking, understanding, reading, and writing German. The audio-lingual technique is emphasized in conjunction with the frequent use of the electronic language laboratory. Conversational German is emphasized.

(3, 0) 3 credits

FL 112 German II (Elementary)

A continuation of German I.

Prerequisite: German I or an equivalent course of study and permission of the department chairman.

(3, 0) 3 credits
FL 112 German II (Elementary)
A continuation of German I.
Prerequisite: German I or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 113 German III (Intermediate)
A continuation of the four basic skills of German. Primary emphasis is reading nontechnical material in German for understanding and vocabulary development.
Prerequisite: German II or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 114 German IV (Intermediate)
A continuation of German III with more emphasis on reading literary material in German and a review of German structural grammar by the explication de texte method.
Prerequisite: German III or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 115 German V (Advanced)
A brief introduction to German literature and a particular in-depth study of a period or genre of German literature. German is the primary mode of communication in this course.
Prerequisite: German IV or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 116 German VI (Advanced)
A continuation of German V.
Prerequisite: German or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 141 Spanish I (Elementary)
A course in the four basic skills of speaking, understanding, reading, and writing Spanish. The audio-lingual technique is employed in conjunction with the frequent use of the electronic language laboratory. Conversational Spanish is emphasized.
(5, 0) 3 credits

FL 142 Spanish II (Elementary)
A continuation of Spanish I.
Prerequisite: Spanish I or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 143 Spanish III (Intermediate)
A continuation of Spanish II with more emphasis on reading nontechnical material in Spanish for understanding and vocabulary development.
Prerequisite: Spanish II or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 144 Spanish IV (Intermediate)
A continuation of Spanish II, with more emphasis on reading literary material in Spanish and a review of Spanish structural grammar by the explication de texte method.
Prerequisite: Spanish III or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 145 Spanish V (Advanced)
A brief introduction to Spanish literature and a particular in-depth study of a period or genre of Spanish literature. Spanish is the primary mode of communication in this course.
Prerequisite: Spanish IV or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 146 Spanish VI (Advanced)
A continuation of Spanish V.
Prerequisite: Spanish V or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

FL 147 Spanish VII (Advanced)
A course in individualized instruction in which the student elects to study his choice of any aspect of Spanish or Spanish American language, literature or culture.
(3, 0) 3 credits
FL 148 Spanish VIII (Advanced)
A continuation of Spanish VII. Prerequisite: Spanish VII or an equivalent course of study and permission of the department chairman.
(3, 0) 3 credits

GRAPHIC ARTS

GA 100 Graphic Arts I
(3, 0) 3 credits

GA 101 Visual Fundamentals
Study of the elements and principles of visual representation: line shape, texture, value, color, contrast, emphasis, rhythm, repetition. Geometric and organic designs. Use of form and space.
(2, 3) 3 credits

GA 102 Typography
The function of type, identification and specification. Copyfitting, proofreading, mark-up of proofs. History of type and modern composition methods such as linotype, monotype and phototypesetting.
(3, 0) 3 credits

GA 103 Layout and Printing Design
Planning and designing advertising copy for reproduction. Use of roughs, thumbnails, comprehensives, tracings, paste-ups, mechanicals, veloxes, screens, photostats. Photographic reproductions and enlargements.
(2, 2) 3 credits

GA 200 Graphic Arts
Practical application of offset lithography. Use of production equipment for mechanicals, reproduction, photography, platemaking and presswork. Photo silk screen fundamentals. Finishing equipment and procedures.
(2, 3) 3 credits

GA 201 Graphic Arts Production
Use of laboratory equipment for a large scale production problem. This course tries to duplicate as closely as possible control production conditions for a shop with limited facilities.
(2, 4) 4 credits

GA 202 Printing Estimation
Study of printing papers and prices as related to impositions and press operations. Comparisons of plate costs, reproduction media, preparation and material costs. Time, service and labor charges. Estimating typical jobs.
(3, 0) 3 credits

GA 203 Seminar
A study of the advertising and graphic arts business on Long Island. Exploring opportunities for employment. Contact with industry through field trips and speakers.
(0, 3) 1 credit

GA 204 Production Management
Developing efficient production methods from layout to finished product. Work schedules, materials, liaison, personnel supervision, fringe benefits, wages and hours, plant layout, principles of management.
(3, 0) 3 credits

GA 300 Reproduction Photography
The study of line and halftone photography. Proper use of contact screen employing flashing and bumping techniques. Copy correction and densitometry.
(2, 3) 3 credits

GA 301 Traffic Management
In-plant traffic procedures as used in advertising agencies, commercial plants, publishing houses, and direct mail houses. Use of job tickets, purchasing and ordering forms, postal regulations. Checking and billing.
(3, 0) 3 credits
GA 302 Color Reproduction
Color reproduction in advertising and commercial literature. Methods of color separation, color analysis, kinds of inks; the study of flat color and process color reproduction. Direct and indirect color separation from reflection and transparent copy. Color correction by silver masking. Problems in ink and color matching. (2, 3) 3 credits

GA 303 Photo Offset Printing
The photo offset printing method from layout to finished job. Type and art preparation, photographic reproduction of line and halftone copy, stripping, plate-making, presswork. Color and black-and-white reproduction. (2, 3) 3 credits

GA 305 Advanced Commercial Photography
Use of color in photographic problems. Outside work based on assignments that might be encountered by students in the field. Individual research in specific photographic areas. (2, 3) 3 credits

MATHEMATICS

MA 95 Basic Mathematics I
An introduction to the Basic Concepts of Algebra. Topics included are: decimals, arithmetic fractions, rational numbers, fundamental operations in algebra, linear equations and inequalities, factoring, algebraic fractions, fractional equations and simultaneous equations. (3, 0) 3 credits
No Pre-Requisite.

MA 96 Basic Mathematics II
A continuation of MA95: further concepts in algebra and an introduction to geometry and trigonometry. Topics included are: Exponents and radicals, quadratic equations, polygons, measurements, ratios, proportions, variations, graphing and right triangle trigonometry. (3, 0) 3 credits
Pre-Requisite: MA95.
* Credit will be given to the following groups only: Developmental Studies, Pre-Health, Pre-Tech and One Year Certificate Programs that require Math.

MA 100 Survey of Mathematics
Basic concepts and themes in mathematics are developed and expanded to promote understanding rather than mechanical skills. This is a one semester course intended to provide a broad appreciation of the power, structure and beauty of mathematics. (3, 0) 3 credits
Prerequisite: Elementary Algebra.

MA 105 College Algebra
Sets, the real number system, selected algebraic and transcendental functions. (3, 0) 3 credits
Prerequisite: Two and one-half years of high school mathematics to include Intermediate Algebra.

MA 106 Introduction to Matrices & Linear Programming
Recommended: Two and one-half years of high school mathematics to include Intermediate Algebra. Vectors, Matrices, determinants and linear programming. (3, 0) 3 credits
Prerequisite: MA 105.

MA 110 Statistics
Basic concepts of probability and statistical inference. Included are the binomial, normal, and chisquare distributions. Practical applications are examined. (3, 0) 3 credits
Prerequisite: Two years of high school mathematics or equivalent.

MA 120 Introduction to Technical Mathematics
An introduction to the Basic Concepts of Algebra and Geometry. Topics included are: signed numbers, language of algebra, evaluation of formulas, basic geometric figures, solution of simple equations, factoring, exponents and radicals. (3, 0) 3 credits
No prerequisite.
MA 121 Introduction to Technical Mathematics II

A continuation of MA 120; further concepts in algebra and geometry, and basic concepts of trigonometry. Topics included are: quadratic equations, logarithms, systems of equations, application of geometric theorems, trigonometric ratios and angular measurement.

(3, 0) 3 credits
Prerequisite: MA 120.

MA 124 Technical Mathematics I

This is a pre-calculus course designed for students in the Engineering Technologies. The unifying idea of this course is function. Algebraic and transcendental functions are presented along with a detailed section on vectors and complex number. Applications to engineering problems are stressed.

(3, 0) 3 credits
Prerequisite: Three years of high school mathematics to include Intermediate Algebra or Eleventh Year Mathematics.

MA 125 Technical Mathematics II

A course designed for the students in the Engineering Technologies emphasizing topics in analytic geometry and differential and integral calculus using a basically intuitive approach.

(3, 0) 3 credits
Prerequisite: MA 124.

MA 126 Technical Mathematics III

A continuation of MA 125. Topics covered include differentiation and integration of transcendental functions, applications and methods of integration, partial derivatives and an introduction to differential equations.

(3, 0) 3 credits
Prerequisite: MA 125.

MA 135 Analytic Geometry and Calculus

Elements of analytic geometry, differentiation of algebraic and trigonometric functions, parametric representations, differentials, antiderivatives and properties of definite integrals.

(3, 0) 3 credits
Prerequisite: MA 106 (or at least a "C" grade in MA 105 or an "A" in MA 124) or 12th year mathematics and the consent of the Department Chairman.

MA 136 Calculus

Differentiation of logarithmic, exponential and hyperbolic functions, techniques of integration, applications of integration and polar coordinates.

(3, 0) 3 credits
Prerequisite: MA 135.

MA 137 Calculus

Differentiation of vectors, infinite series, Taylor's formula, methods of approximation, multiple integration.

(3, 0) 3 credits
Prerequisite: MA 136.

MA 140 Differential Equations

The solving of ordinary differential equations with applications.

(3, 0) 3 credits
Prerequisite: MA 137.

MA 145 Linear Algebra

A study of the basic properties of vectors and vector spaces; linear transformations and matrices; matrix representations of transformations; characteristic values and characteristic vectors of linear transformations; similarity of matrices; selected applications of linear algebra in calculus and differential equations.

(3, 0) 3 credits
Prerequisite: MA 137 or MA 151.

MA 149 Analytic Geometry and Calculus

Differentiation of functions of one variable. Plane analytic geometry including rotation and translation of axes. Vector analysis including rotation and translation of axes. Vector analysis including the scalar and vector product. Introduction to integration.

(4, 0) 4 credits
Prerequisite: 3½ units of high school mathematics to include Advanced Algebra.

MA 151 Analytic Geometry and Calculus

A continuation of the calculus of one variable. Differentiation and integration of the transcendental functions. Integration techniques, polar coordinates, introductions to differential equations, and applications.

(4, 0) 4 credits
Prerequisite: MA 150.
MA 152 Calculus and Linear Algebra

The calculus of several variables. Multiple integration and partial differentiation. Infinite series. Solid analytic geometry and vector calculus. Introduction to Linear Algebra and vector spaces.

(4, 0) 4 credits
Prerequisite: MA 151.

MA 153 Differential Equations

The solution of ordinary differential equations. Boundary value problems and applications to electrical circuits and vibrations. Introduction to partial differential equations.

(4, 0) 4 credits
Prerequisite: MA 152.

MECHANICAL TECHNOLOGY

MT 100 Drafting

A developmental course in drafting designed to provide a general background in graphics and drafting methods. The course format is arranged to provide ample time for regular students to complete assignments, while permitting advanced students to work at an accelerated rate.

(2, 3) 3 credits

MT 102 Graphics

This course combines basic drafting principles and practices with specialty emphasis to suit the requirements of student's curriculum.

Air Conditioning Technology—construction, plans and details, wiring and piping diagrams.

Automotive Technology—technical sketching, gears and cams.

Mechanical Technology—an introduction to descriptive geometry, gear and cam design, industrial standards.

(0, 4) 2 credits

MT 103 Manufacturing Processes

A survey of manufacturing processes concerning metallic and polymer base materials. The effect of processing on the physical and mechanical properties of materials are also discussed. Hot and cold working, heat treatment, machining, welding, and sheet metal processes, laboratory demonstrations and field trips.

(2, 2) 3 credits

MT 105 Mechanics

Statics: Force system and static equilibrium; moments, couples, and simple structures. Centroids and moments of inertia.

(3, 0) 3 credits
Prerequisites: PH 131, MA 124.

MT 107 Engineering Materials and Processes

A survey in engineering materials and processing methods. Ferrous, non-ferrous, ceramic and polymer materials are discussed considering their unique behavior and adaptability to various shearing, forming, foundry, chemical, electrical and welding processes. The physical and mechanical properties of engineering materials are investigated through selected experimental activity and related technical reporting. Laboratory demonstrations and field trips.

(1, 2) 2 credits

MT 111 Machine Tools I

The theory and operation of the Engine Lathe is emphasized. Also included is the drill press, shaper, related measuring tools, geometrics of cutting tools and operation sheet writing.

(1, 4) 2 credits

MT 112 Machine Tools II

The theory and operation of machine tools such as vertical and universal milling machines, gear shaper, numerical control drilling—milling, radial drill press, and contour saw. Emphasis is placed on speed and feeds, tool selection, set ups, operation sheet writing, and making N. C. tapes.

(1, 4) 2 credits
Prerequisite: MT 111.

MT 166 Descriptive Geometry

Graphic analysis and solution to problems involving spatial relationships from the core of this course. Position of points, lines, surfaces in space are determined as well as the clearance, interference, intersection and development of geometric elements.

(0, 4) 2 credits
MT 201 Fluid Mechanics
An introductory study of fluids at rest and in motion. Energy equations, dimensional analysis, flow in pipes, fluid machinery, measurement techniques.
(3, 0) 3 credits
Prerequisite: MA 125, MT 105.

MT 202 Manufacturing Analysis
Advanced machine tool and manufacturing engineering methods. Theory and practice in grinding, hobbing, turret lathe, screw machine, tracer lathe, numerical control—contour milling and lathe contouring, electrical discharge machining, and other selected manufacturing methods.
(3, 4) 4 credits
Prerequisite: MT 112.

MT 203 Metallurgy
An introductory course in physical metallurgy including: atomic bonding, crystal structure and imperfections, elastic and plastic deformation, mechanical behavior, single and multiphase polycrystals, phase equilibria, constitution of ferrous and non-ferrous metals and alloys, recovery recrystallization and grain growth, precipitation, hardening, heat treatment of steel, corrosion, fiberous composites and powder metallurgy. Students submit technical reports reflecting results from selected experimental activities designed to verify theory being discussed. Research problems are assigned and presented to peers for discussion.
(2, 3) 3 credits
Prerequisite: MT 107.

MT 204 Production Control
Analysis and control of production operations. Study of principles, concepts and techniques relative to the design production systems and their control. Students projects include design of plant facility, production and flow charts.
(2, 2) 3 credits
Prerequisites: MT 202, MT 207.

MT 205 Quality Control
Industrial inspection methods applied to dimensional control of precision manufactured items. Theory and practice of metrology devices such as; standard gages, gage blocks, electronic and optical comparators, etc. Quality control organizational structure and statistical quality control is emphasized.
Prerequisites: MT 112, MT 102.
(1, 3) 2 credits

MT 206 Strength of Materials
Basic stress strain relationships, interpretation of physical test data, applications in design practice. Direct axial stresses, torsional stress, and flexural stress; deformations and modes of failure. Problems in beam, column and shaft design, welded and riveted joints, and pressure vessels.
Prerequisites: MA 125, MT 106.
(3, 0) 3 credits

MT 207 Tool Design
Design of production tooling—drill jigs, milling fixtures, gauges and other process tooling. Study and design of pressworking tooling such as compound, progressive, forming and other manufacturing processes.
Prerequisite: MT 112, MT 102.
(2, 3) 3 credits

MT 208 Machine and Product Design
Application of principles of mechanics and strength of materials to design of machine elements including springs, gears, brakes, clutches, and fasteners. Dynamic loading conditions. Opportunity of creative design effort on a project basis.
Prerequisite: MT 206.
(3, 2) 4 credits

MT 211 Numerical Control
Principles of point-to-point and contour numerical control programming. Introduction to APT language and use of IBM 360 computer, computer applications on contour lathe, milling and other equipment.
Prerequisite: MT 202.
(1, 3) 2 credits
MT 212 Dynamics
A study of forces that cause and accompany motion. The three methods of kinetic analysis are considered: the force-mass acceleration methods, the work-energy methods, and the impulse-momentum method.
(3, 0) 3 credits

MT 216 Engineering Measurement
Collection of engineering test data utilizing measuring devices as potentiometers, wattmeters, manometers, gauges, calorimeters, etc. Calibration, data discrimination, and theory of errors applied in presenting extensive technical reports. Prerequisites: MT 201, MT 206.
(1, 3) 2 credits

MEDICAL LABORATORY TECHNOLOGY
ML 144 Clinical Colloquium
Presentations by the faculty and guest lecturers in the field of Medical Laboratory Technology. Discussion of the role of the technologist and latest trends and developments in the clinical field. Time is allotted for questions and discussions. Presentations by students may also be included.
(0, 2) 1 credit

ML 200 Histology and Cytology
A course in the essentials of prepration of mammalian and human tissues for microscopic examination including the fixing, embedding, sectioning and staining of these tissues. The theoretical and practical aspects of tissue and organ identification are taught as well as cytological techniques. Automated tissue processing techniques and the preparation of frozen sections are integral parts of the course. Prerequisites: SC 105, SC 187, CH 207, CH 110, or permission of chairman.
(2, 4) 3 credits

ML 210 Hematology and Renal Physiology
The study of hemopoiesis, and the blood count as a diagnostic tool. The significance of abnormal findings. Study of the physiology of the kidney under normal and abnormal circumstances, through analysis of the urine. Recent sophisticated equipment and methods used in blood and urine analysis. Prerequisites: SC 137, CH 107, SC 105, or permission of the chairman.
(2, 3) 3 credits

ML 211 Clinical Chemistry
The chemical analysis of blood, urine and cerebrospinal fluid with emphasis on blood tests. The role of chemical tests in medical diagnosis and prognosis. Students learn the theory and performance of a broad spectrum of tests. Procedures are done manually and with the latest automated equipment including auto-analyzer techniques. Routine tests as well as more specialized tests including enzyme studies, fluid and electrolyte balance and electrophoresis are studied. Prerequisites: CH 107, CH 110, CH 204, SC 105, or permission of chairman.
(3, 3) 4 credits

ML 214 Diagnostic Bacteriology
The study of general principles of bacteriology with emphasis on the isolation and differentiation of organisms encountered in the hospital laboratory. Sensitivity testing, serological typing methods, and sterility testing for pathogenic bacteria common to clinical syndromes are included.
(2, 3) 3 credits
ML 215 Serology and Immunology

The study of resistance to infectious diseases by the body's immune mechanisms. This includes consideration of the properties and behavior of foreign antigenic substances and antibodies formed in response. Serological diagnostic procedures in the laboratory emphasize understanding and interpreting the tests for Syphilis, Mononucleosis, Rheumatic Fever, Rheumatoid Factor, Pregnancy and others. An introduction to Blood Banking is included and involves blood typing and RH determination, crossmatching and Coombs test. Modern techniques and instrumentation such as the Auto Analyzer are employed.

Prerequisites: SC 105, SC 137, CH 107, CH 110 or permission of chairman.
(2, 3) 3 credits

ML 243 Practicum in Medical Technology

Students will spend five hours per week at local cooperating hospital laboratories under guidance of senior technician and/or laboratory director. Work to be appraised by person in charge of laboratory and department chairman. In lieu of this, students may do advanced work in specialized tests in the college laboratory.

Prerequisites: Open only to students who have completed ML 210, 214, 215, or with permission of chairman.
(2, 3) 3 credits

MORTUARY SCIENCE

MS 101 History and Orientation on Funeral Principles and Practices

The survey and study of funeral practices from the year 4000 B.C., Egypt, to the present in America.
(3, 0) 3 credits

MS 102 Public Health & Sanitation

A survey of Public Health problems, organisms causing infectious diseases, agencies, etc.
(3, 0) 3 credits

MS 202 Anatomy for Embalmers

A course for the Mortuary Science student involving a detailed study of the vascular system, muscular system and skeletal system.
(2, 2) 3 credits

MS 203 Embalming Theory and Practice

Lectures and clinical experience dealing with the basic principles, techniques and treatments of embalming processes. Prerequisite: SC 105.
(3, 4) 4 credits

MS 204 Restorative Art

The practical application of modeling technique and cosmetology to restore facial features damaged by trauma and disease.
(2, 2) 3 credits

MS 205 Mortuary Law

A study of mortuary jurisprudence and business law. Application to professional and business aspects of funeral home operation.
(3, 0) 3 credits

MS 206 Mortuary Management

A study of management techniques and procedures for funeral chapels.
(3, 6) 5 credits

MS 207 Clinical Practices

Practical embalming experience in the campus preparation room, and in cooperating funeral homes under supervision of licensed teachers.
(3, 2) 4 credits

MS 208 Histology and Pathology

Pathological changes as related to disease processes and the affects of physical and chemical trauma on the human body are discussed. Post-mortem visual materials are used to illustrate these processes.
(2, 2) 3 credits
NURSERY EDUCATION

ED 100 Introduction to Nursery Education
An overview of Nursery Education—the history, philosophy, and the role of nursery education in the overall educational scheme. Private schools, cooperative nurseries, day care centers, and other agencies will be covered in the course. Visits to nursery schools by the student are required. This course is a mandatory prerequisite to all other courses in the Department.
(3, 0) 3 credits

ED 101 Creative Activities I
Developing techniques in the creative teaching of young children. Methods and approaches utilizing the equipment and media appropriate to each curriculum area. Special emphasis placed on music, wood working, language arts, science, block building, dramatic play, and outdoor experiences.
(2, 2) 3 credits

ED 102 Creative Activities II
Developing artistic and perceptual awareness for teachers of young children with various art media. Paints, collage, paper mache and other materials will all be explored for use in early childhood education.
(2, 2) 3 credits

ED 103 Creative Activities III
The student is led to explore the many means of using music and musical experiences with young children. These include rhythms, body movement, song and dance, plus the use of musical instruments and audio visual equipment.
(2, 2) 3 credits

ED 115 Childhood Education
An introduction to the areas of curricula for young children with emphasis on individualization of instruction as well as an evaluation of the new approaches to the teaching of reading, mathematics, science and social studies. The focus remains in the area of early childhood education.
(3, 0) 3 credits

ED 120 Observation of Children
The study of the behavior of children individually and in groups, in light of the current knowledge in child development. The techniques of observation and the recording of behavior. The responses of the child to his environment; i.e., adults, peers, materials.
(1, 4) 3 credits

ED 200 Children's Literature
A study of literature for young children; development of a working knowledge of authors, illustrators and publishers of children's books with emphasis on language, format and subject matter. Attention to the selection and use of poetry and practice in story telling and reading skills.
(3, 0) 3 credits

ED 207 Field Experiences in Early Childhood Education
Participation in educational programs for young children. The student will take increasing responsibility in the role of assistant teacher. Two seminar hours plus 12 laboratory hours. Permission of the Department Chairman.
Prerequisite: ED 120.
(2, 12) 8 credits

ED 215 Workshop in Early Childhood Education
Each student will have the opportunity to explore in depth an independent project relating to the profession. Permission of the Department Chairman.
(3, 0) 3 credits

ED 216 Education of Young Children From Minority Groups
The education of disadvantaged young children from black, Puerto Rican and other minority groups with consideration for the historical, cultural and educational backgrounds of each. Special attention is given to the psychological-sociological roots of prejudice.
(3, 0) 3 credits
ED 217 Education of Exceptional Children

The background and characteristics of children with learning disabilities in the light of recent approaches to the teaching of these children in school settings and institutions. Stress is put on recent approaches to the teaching of these children and the role of the teaching assistant.

NU 101 Nursing—Fundamentals

The study of nursing care common to all patients, and the scientific principles underlying that care. Opportunity to develop nursing skills and apply knowledge through guided learning experiences in the college laboratory and through the care of selected patients in the hospital environment, and community agencies. Prerequisites: One unit of high school Algebra; two units of high school Biology and Chemistry.

NU 102 Nursing—Parental and Child Health

The study of the developmental tasks of the family life cycle including preparation for marriage, pregnancy, and childbirth. Although emphasis is on the role of the nurse in caring for the well mother, father, and newborn, consideration is given to deviations from the normal. The role of the nurse as a member of the health team is incorporated. Guided learning experiences are provided in hospitals, public schools, well baby clinics and other community agencies. Prerequisites: NU 101, SC 105, Grade of "C" or better.

NU 201 Nursing—Mental and Physical Illness

The study of major problems of children and adults with medical, surgical, and mental illnesses, with emphasis on the promotion and maintenance of maximum health. Consideration is given to preventive measures in the physical and psychological spheres. Guided learning experiences in nursing care are concurrently provided in the general and psychiatric hospitals and other community agencies. Prerequisites: NU 102, CH 106, Grade of "C" or better.

NU 202 Nursing—Mental and Physical Illness

Further study of major health problems of children and adults. Specific areas of emphasis are neurological assimilation, excretion and transportation. Prerequisites: NU 201, SC 110, Grade of "C" or better.

NU 204 Nursing in Modern Society

An exploration of current major trends and issues in nursing. Some areas considered are: the organization and distribution of nursing and related services to meet changing health needs of people; differentiation of levels of nursing practice, and legal responsibilities inherent in nursing care. Problems of adjustment from student to practitioner are discussed. Prerequisites: NU 101, NU 102, NU 201 with grade of "C" or better.

NU 210 Personal, Family and Community Health

An interdisciplinary study of factors in daily life which contribute to the promotion, conservation and maintenance of the health and well-being of individuals from childhood through senescence. Discussion of the major health problems in each stage of growth and development with emphasis on measures for recognition, prevention and rehabilitation. Consideration will be given to the effects of illness on the individual and the family. Community resources which aid in the promotion of these goals are surveyed.

NU 217 Education of Exceptional Children

The background and characteristics of children with learning disabilities in the light of recent approaches to the teaching of these children in school settings and institutions. Stress is put on recent approaches to the teaching of these children and the role of the teaching assistant.

(3, 0) 3 credits

(4, 9) 7 credits

(5, 9) 8 credits

(2, 0) 2 credits

(3, 9) 6 credits

(3, 0) 3 credits

(4, 9) 7 credits

(5, 9) 8 credits

Not open to Nursing majors except by permission of the instructor.
ORNAMENTAL HORTICULTURE

OH 101 Soil Science
The study of soil texture, structure, organic matter, and plant nutrients as related to the use of lime, fertilizers, manures, and peats to raise horticultural soils to high levels of production.
(2, 2) 3 credits

OH 102 Floriculture
A survey of the floriculture industry, including both basic floral design and greenhouse management. Laboratory experiences include corsage construction, flower arranging, greenhouse maintenance, crop development. Through practical experience all students are given the opportunity to gain knowledge in many phases of floriculture.
(1, 6) 3 credits

OH 103 Herbaceous Plants I
Classification, identification, and general culture of perennials, bulbs, and roses commonly used in garden planning.
(1, 2) 2 credits

OH 104 Horticulture II
In this course the student is made aware of the plants' total environment and the forces affecting the plants' growth responses. Specific details are developed to introduce the theories behind plant propagation, and the plant growth and control.
(2, 2) 3 credits

OH 105 Landscape Gardening
Classroom studies in landscape appreciation. The elements and principles of art for creative design with application in lettering, freehand, and perspective drawing. Field application in garden improvement and operation.
(1, 6) 3 credits

OH 106 Nursery Management
An introductory nursery course in the techniques and practices used in the commercial production of herbaceous perennials, ground covers, deciduous shrubs and trees, conifers, and broad-leaved evergreens. Greenhouse and nursery procedures and practices. The elements and principles of art for creative design with application in lettering, freehand, and perspective drawing.
(1, 6) 3 credits

OH 107 Woody Plants
The Woody Plants courses give a picture primarily of the woody plants grown in nurseries for landscape purposes, and secondarily of those found in arboretums, woodlands, and fields of Northeastern United States. Emphasis is on identification, culture, uses, flowers, and fruits, and ecological relationships. Several of the evergreens, broad and narrowleaf, as well as some of the deciduous trees and shrubs will be covered in this first study.
(2, 2) 3 credits

OH 108 Turfgrass Culture
A study of fine turfgrasses: soil, propagation, maintenance, growth requirements and identification characteristics. Numerous materials, equipment, operations, usages, programs, and work procedures for proper and efficient management of specialized turfgrass areas, including golf courses, institutional and residential properties are studied.
(2, 3) 3 credits

OH 109 Turfgrass Management I
Laboratory sessions in constructing and maintaining specialized turfgrass areas, particularly golf course and garden turfgrass. Part of the course will be spent in learning design principles and drafting techniques where lettering, freehand and perspective drawing will be studied.
(2, 3) 3 credits

OH 110 Horticulture I
Instruction, orientation, and field experience in the various phases of horticulture. Each week the explanation and demonstration of a new subject precede the assignment to duties. A rounded experience is the objective. Tools, techniques, and standards of workmanship are taught.
(1, 3) 2 credits
OH 112 Ecology
The study of relationships of organisms to their environment and to each other. Emphasis is on plant relationships. Field trips will be taken to observe the various ecological plant communities.
(2, 3) 3 credits

OH 201 Arboriculture I
Theory and practice of care of shade and ornamental trees. Techniques of climbing, pruning, bracing, cabling, fertilization, bark repair, and cavity repair.
(1, 6) 3 credits

OH 202 Flower Shop Management I
A study of the use of flowers in the florist industry. The art of floral design as to form, style, and composition will be discussed. Designing of floral arrangements, wreaths, sprays, baskets, bouquets, wedding flowers and corsages is included in the laboratory.
(1, 3) 2 credits

OH 203 Greenhouse Management I
A study of greenhouse structures used for commercial production of cut flower and pot plants crops. Various construction and maintenance techniques will be discussed, as well as greenhouse ventilation and cooling equipment. Practical application of greenhouse equipment will be discussed and applied to the production of crops.
(2, 3) 3 credits

OH 204 Herbaceous Plants II
Continuation of Herbaceous Plants I: annual and biennial flowers, and fall flowering perennials. Landscape uses of herbaceous plants and design of flower borders.
(1, 3) 2 credits

OH 206 Horticultural Management and Operations
Office management procedures, as they pertain to the basic requirements of contracts, specifications and professional ethics within ornamental horticulture and landscape development, are discussed. A study is made of the relationships between client and contractor, client and designer, and designer and contractor. Cost, fee determination and procedures are discussed.
(3, 0) 3 credits

OH 207 Landscape Plans I
The theory and principles of landscape design applied to selected landscape problems. Preliminary sketches and final presentations in plan, elevation, and perspective form. Grading, construction, planting, and staking plans; basic details of architectural construction.
(1, 6) 3 credits

OH 208 Nursery Production
Commercial nursery stock production dealing with plant growth patterns and plant responses in relation to soils, water, fertility, planting techniques and distances, top and root pruning. Plant production cycles, rotations, and treatment for economy production. Emphasis will be placed on the commercial propagation of woody plants by sexual and asexual means.
(3, 3) 4 credits

OH 209 Planting Plans I
Emphasis on the theory of landscape design as it pertains to residential site improvement, including how to read and draw basic landscape plans, plant arrangements and landscape construction units. Visual examples are utilized with previously drawn plans and slides of developed plans.
(1, 6) 3 credits
OH 210 Plant Propagation
A study of the fundamental techniques and the theory and principles involved by the production of horticultural plants by seeds, cuttings, layering, and grafting.
(2, 3) 3 credits

OH 212 Woody Plants II
A continuation of Woody Plants I covering additional evergreens, broad and narrow-leaf, as well as deciduous plants—trees, shrubs, vines, and ground covers.
(2, 2) 3 credits

OH 213 Aboriculture II
Advanced theory, practice, and field studies of aboriculture industry, including care and pruning of fruit plants, diagnosis of tree ills, shade tree evaluation, power equipment. Business practices and organization including management, record keeping, estimating, customer relations, ethics, and standards. Prefaced by an overview of the aborist industry.
(1, 3) 2 credits

OH 214 Horticultural and Turfgrass Equipment
A study of the type of powered equipment used by the industry. Small engines, power sources and systems are studied. Emphasis is based on maintenance selection and operation of this equipment.
(2, 2) 3 credits

OH 215 Flower Shop Management II
A study of the internal workings of a florist shop including sales, design, marketing, buying and advertising. The design of flowers for special occasions, including designs for churches, hotels, reception halls.
(2, 3) 3 credits

OH 216 Greenhouse Management II
The study of florist crops, modern technical applications, and cultural requirements, as used in the production of cut flowers and pot plants in the floriculture industry.
(2, 6) 4 credits

OH 218 Indoor Plants
A study of various plants that are suitable for indoor culture. Emphasis will be placed on identification, propagation, cultural requirements, ecological and aesthetic values.
(2, 2) 3 credits

OH 219 Landscape Construction
Details of steps, walks, seats, walls, fences, and other landscape features and structures. Selection and use of materials used in the construction of these features.
(2, 3) 3 credits

OH 220 Landscape Plans II
A continuation of Landscape Plans I with progressively more difficult problems.
(1, 9) 4 credits

OH 221 Landscape Surveying
The theory of plane surveying applied to landscape design problems. A study and evaluation of instruments, procedures and computations as related to pacing, taping, determination of angles, leveling, topographic mapping for land surveying.
(1, 4) 3 credits

OH 222 Nursery Management II
A continuation of the study of commercial plant production dealing with programming plant production and nursery land use, as related to nursery layout in sections and blocks. Special facilities and structures are oriented into the production programs for economic production. Cost finding techniques, price fixing, and profits are studied and equated.
(2, 3) 3 credits

OH 225 Woody Plants III
Advanced study of the plants previously considered, especially of named varieties or cultivars, and of the lesser-known trees, shrubs, vines, and ground covers. An understanding of plant peculiarities and requirements, and the ability to evaluate them for landscape purposes are important objectives.
Prerequisites: OH 107, OH 212.
(1, 3) 2 credits
OH 230 Turfgrass Management II
Business procedures confronting professional turf growers including cost accounting, time study, record keeping, evaluation of equipment and materials. Numerous field trips are taken to local golf courses to study business and management operations.
(2, 3) 3 credits

OH 231 Turfgrass Management
General course for non-turfgrass management students. Constructing and maintaining turfgrass for residential grounds, parks, schools, athletic fields, institutions and commercial sites. Identification, control and prevention of common insect, disease and weed problems.
(2, 2) 3 credits

OH 236 Drainage and Irrigation
The efficiencies of various drainage and irrigation concepts are discussed as they pertain to terrain, soils, climate, and plants being grown. Water sources, availability and storage are taught along with pressure requirements and means of conveyance. When to irrigate, how to irrigate and rates of application are discussed as they relate to soils and terrain.
(2, 3) 3 credits

OH 240 Horticultural Merchandising
Techniques of horticultural merchandising. Emphasis is on business site feasibility, selection and requirements; advertising and sales techniques; purchasing, pricing and profit determination. Guest speakers and field trips to commercial sites are used to advantage.
(2, 3) 3 credits

PHOTOGRAPHIC TECHNOLOGY

PT 101 Photographic Processes I
Fundamental applications of photographic science (densitometry, sensitometry, photometry, basic photographic chemistry). Basic darkroom procedures, testing procedures, process control, and technical report writing are emphasized.
(3, 4) 4 credits

PT 102 Photographic Processes II
Advanced work with the fundamentals introduced in PT 101. In addition, view camera operation, basic studio, architectural, and industrial photography, light, lenses, lens testing, and photographic emulsion chemistry are covered. Prerequisite: PT 101.
(3, 4) 4 credits

PT 201 Photographic Mechanism I
Still camera mechanisms. Nomenclature, design, theory, and function of camera components. Industrial standards of operation are stressed.
(1, 3) 2 credits

PT 202 Photographic Processes III
The theoretical principles and practical aspects of color and color photography. The function of light in color, image formation, color correction, colorimetry, and dye image structure associated principally with contemporary color processes. Prerequisite: PT 102.
(3, 6) 5 credits

PT 204 Photographic Electronics
Study of the design and operating principles of electronic circuitry directly related to the automation of photographic devices. Development and use of the two-line diagram in circuit analysis and trouble shooting. Power supplies and special circuitry associated with timing mechanisms, synchronizing mechanisms and specialized light sources of the pulsed xenon and other high-intensity short-duration types.
(2, 3) 3 credits

PT 205 Photographic Mechanisms II
The mechanisms and related equipment employed in the fields of 8 mm. and 16 mm. motion picture. Nomenclature, function, and design requirements of component parts. Unit layout efficiency and problems in kinetics. Experience with modern motion picture cameras and projectors. Prerequisite: PT 201.
(1, 3) 2 credits
PT 206 Photographic Processes IV

Devices, processes, and materials associated with the high-speed and mass production field of photography where automation plays a vital role. An interrelated application of the theories and practices studied in physics, electronics, chemistry, and photomechanisms, and in the previous courses in Photographic Processes. Prerequisite: PT 202.
(3, 4) 4 credits

PT 220 Biological Photography

An introductory course in the basic concepts underlying the science of photography. Photo-chemical theory, photo-optics, and sensitometry are basic to the allied aspects of this course. Assignments and laboratory experimentation include studies of photographic materials, photographic processes, general photography, lighting, composition, elements of motion picture photography, photocopying and office duplicating systems, and photomacrographic principles. Prerequisite: Successful completion of one year of Biological Technology curriculum or its equivalent.
(2, 4) 3 credits

PT 221 Biological Photography

An expansion of the photographic fundamentals introduced in PT 220, with considerable emphasis on color. Preparation and presentation of visual communication materials, gross specimen photography, photomicrography, slide production and duplication, X-ray duplication and reduction. Use of ultra-violet, infra-red and other special illumination problems. Special clinical and field problems will be assigned on the basis of the individual area interests of the students. Prerequisite: PT 220.
(2, 4) 3 credits

PHYSICAL EDUCATION

PE 101 Archery-Bowling

This course consists of one week of orientation, then seven weeks of Archery and seven weeks of Bowling. The student is given the history, basic rules, and the skills for these sports. Students must obtain regulation gym uniforms and sneakers during the first week of classes. Student who elect this course must pay $4.20 for the use of the alleys. 15 wks. 2 hrs. per wk., 1 credit

PE 104 Golf-Volleyball

This course consists of one week of orientation, then seven weeks of golf and seven weeks of volleyball. The student is given the history, basic rules, and the skills for these sports. A regulation gym uniform and sneakers are required. 15 wks. 2 hrs. per wk., 1 credit

PE 105 Archery-Badminton

This course consists of one week of orientation, then seven weeks of Archery and seven weeks of Badminton. The student is given the history, basic rules, and the skills for these sports. A regulation gym uniform and sneakers are required. 15 wks. 2 hrs. per wk., 1 credit

PE 106 Tennis-Golf

This course consists of one week of orientation, then seven weeks of Tennis and seven weeks of Golf. The student is given the history, basic rules, and the skills for these sports. A regulation gym uniform and sneakers are required. 15 wks. 2 hrs. per wk., 1 credit
PE 107 Self Defense-Tennis (Men)  
Slimnastics-Tennis (Women)

This course consists of one week of orientation, then seven weeks of self-defense and seven weeks of Tennis for Men. It will have one week of orientation, then seven weeks of Slimnastics and seven weeks of Tennis for Women. The student is given the history, basic rules, and the skills for these sports. A regulation gym uniform and a pair of sneakers are required.
15 wks. 2 hrs. per wk., 1 credit

PE 108 Tennis-Volleyball

This course consists of one week of orientation, then seven weeks of Tennis and seven weeks of Volleyball. The student is given the history, basic rules, and the skills for these sports. Students must obtain regulation gym uniform and sneakers during the first week of classes.
15 wks. 2 hrs. per wk., 1 credit

PE 109 Badminton-Bowling

This course consists of one week of orientation, then seven weeks of Badminton and seven weeks of Bowling. The student is given the history, basic rules, and the skills for these sports. Students must obtain regulation gym uniform and sneakers during the first week of classes. Students who elect this course must pay $4.20 fee for use of the alleys.
15 wks. 2 hrs. per wk., 1 credit

PE 110 Handball-Tennis

This course consists of one week of orientation, then seven weeks of Handball and seven weeks of Tennis. The student is given the history, basic rules, and the skills for these sports. Students must obtain regulation gym uniform and sneakers during the first week of classes.
15 wks. 2 hrs. per wk., 1 credit

PE 111 Golf-Squash

This course consists of one week of orientation, then seven weeks of Golf and seven weeks of Squash. The student is given the history, basic rules, and skills for these sports. Students must obtain regulation gym uniform and sneakers during the first week of classes.
15 wks. 2 hrs. per wk., 1 credit

PE 112 Beginning Swimming

This course consists of one week of orientation, then 14 weeks of swimming. The student will be given the basic skills for beginning swimming.
15 wks. 2 hrs. per wk., 1 credit

PE 113 Weight-Training-Handball

This course consists of one week of orientation, then seven weeks of Weight-Training and seven weeks of Handball. The student is given the history, basic rules, and skills for these sports. Students must obtain regulation gym uniform and sneakers during the first week of classes.
15 wks. 2 hrs. per wk., 1 credit

PE 114 Squash-Tennis

This course consists of one week of orientation, then seven weeks of Squash and seven weeks of Tennis. The student is given the history, basic rules, and skills for these sports. Students must obtain regulation gym uniform and sneakers during the first week of classes.
15 wks. 2 hrs. per wk., 1 credit

PHYSICS

PH 101 Elementary Physics I  
Laboratory

An elementary physics laboratory associated with PH 101. Experiments include: Measurement, Speed, Freely falling bodies, Vectors, Forces, Friction, Heat. (0, 2) 1 credit

PH 102 Elementary Physics II

A continuation of PH 101. Topics covered include Wave Motion, Optics, and Electricity and Magnetism. (3, 0) 3 credits

PH 102 Elementary Physics II  
Laboratory

An elementary physics laboratory associated with PH 102. Experiments include: The Pendulum, Vibrating Strings, Resonating Air Column, Speed of Sound, Reflection, Lenses, The Microscope, D.C. Circuits, Wheatstone Bridge. (0, 2) 1 credit
PH 112 Physical Science
A broad general course designed to give students a better understanding of modern science including some of the more recent developments.
(3, 0) 3 credits

PH 114 Man's Environment
A physical science course dealing with problems of population, pollution, transportation, communications, energy requirements, radioactivity and radioactive wastes, thermal and noise pollution.
(3, 0) 3 credits

PH 117 Elements of Astronomy
This is an elementary Astronomy course in which the student is introduced to the observation of the sky and all that it contains. The Solar System, Stars, Nebula, and the Milky Way will be studied and the various hypotheses of the origin of the universe will be discussed. Periodic evening observations of the skies will be conducted.
(3, 0) 3 credits

PH 119 The Man Made World
Most people are directly concerned with technology which surrounds them and shapes their lives. This is the man-made world: the technology which has been created to improve men's lives. The primary objective of this course is a first step toward technological literacy. Topics covered include decision-making, modeling, optimization, systems and feedback.
(3, 0) 3 credits

PH 131 College Physics I
Mechanics: fundamental concepts of units, vectors, equilibrium, velocity and acceleration in translatory and rotary motion; force, energy and momentum; fluids at rest and in motion; thermometry and calorimetry.
Prerequisite: 2½ years High School Math, including Intermediate Algebra and 1 year High School Physics or PH 101
(3, 0) 3 credits

PH 131 College Physics Laboratory
Laboratory problems, experiments, and report writing associated with the topics studied in PH 131 College Physics I.
Prerequisite: PH 131 College Physics I completed or concurrent
(0, 2) 1 credit

PH 132 College Physics II
Prerequisite: PH 131 Theory and Laboratory
(3, 0) 3 credits

PH 132 College Physics Laboratory II
Laboratory problems, experiments and report writing associated with topics studied in PH 132 College Physics II.
Prerequisite: PH 132 College Physics II completed or concurrent.
(0, 2) 1 credit

PH 141 Physics—For the Liberal Arts Student
A Physics course, with laboratory, designed to give the Liberal Arts student an appreciation of the basic concepts of Physics and the laws governing the universe. The view point is modern and humanistic. The course aims at an understanding of fundamentals, space-time symmetries, relativity, gravitation, electromagnetism, kinetic theory, quantum and particle physics.
(3, 2) 4 credits

PH 142 Physics—For the Liberal Arts Student
Same as above.
(3, 2) 4 credits

PH 151 University Physics I
Mechanics of particles and "rigid bodies," work, energy, momentum, internal stress, and conservation laws; fluids at rest, and in motion.
Prerequisite: MA 150 Analytic Geometry and Calculus or concurrent.
(3, 2) 4 credits
PH 152 University Physics II
Coulomb's Law, the electric field, potential capacitance and properties of dielectrics, current, resistance, and electromotive force. D-C circuits and instruments. The magnetic field and forces, induced EMF, alternating currents and electromagnetic waves.
Prerequisite: PH 151, MA 151, Analytic Geometry and Calculus completed or concurrent
(3, 2) 4 credits

PH 153 University Physics III
Prerequisites: PH 152, MA 151 completed or concurrent
(4, 0) 4 credits

PH 154 Modern Physics
Introduction to the basic ideas of modern physics such as Einstein's theories of relativity, early ideas of atomic structure including the Bohr and Rutherford model, photoelectric effect, de Broglie waves, wave mechanics, Schroedinger's Equation, Heisenberg's Uncertainty Principle, Hydrogen Atom, electron spin, Pauli's Exclusion Principle, quantum oscillator, classical and quantum statistics, solid state physics, nuclear physics and elementary particles.
Prerequisite: PH 151, 152, 153
(4, 0) 4 credits

PH 151 University Physics Laboratory I
Laboratory experiments associated with PH 151 and part of PH 152. Prerequisites: PH 151 completed; PH 152 completed or concurrent
(0, 3) 1 credit

PH 152 University Physics Laboratory II
Laboratory experiments associated with PH 152 and PH 153.
Prerequisites: PH 151, PH 152, PH 153, PH 161
(0, 3) 1 credit

POLICE SCIENCE
PS 103 History of American Law and Justice
Philosophical and historical background of policing throughout the free world; special emphasis is placed on the heritage of British and American policing; the governmental role of law enforcement in society; administration of American criminal justice at all levels of government.
(3, 0) 3 credits

PS 105 Police Traffic Enforcement
General orientation to highway traffic administration and accident prevention. History of the traffic problem. Function of agencies responsible for highway traffic administration. Introduction to the use of radar, selective enforcement, and other techniques available to law enforcement to cope with the traffic problem.
Prerequisite: PS 104
(3, 0) 3 credits

PS 110 Police Administration
Principles of organization and management in law enforcement and public safety. The evaluation of administrative devices. Analysis and evaluation of the major problems in police administration, organization problems, and police planning and research.
Prerequisite: PS 103
(3, 0) 3 credits
PS 200 Forensic Science
Introduction to criminal investigation; technical methods used at the crime scene; development of clues, tracing of perpetrator; criminal investigation procedures including the theory of an investigation; conduct at crime scenes; collection and preservation of physical evidence; analysis of the elements that constitute all crimes.
Prerequisite: PS 103
(3, 0) 3 credits

PS 201 Forensic Science II
The role of the Crime Laboratory in the law enforcement organization; need for a criminalistics operation; scope of a criminalistics operation; organizational orientation of the criminalistics laboratory.
Prerequisite: PS 200
(2, 2) 3 credits

PS 214 Police Community Relations
Emphasis will be placed on the numerous and complex factors involved in the area of human relations as they affect policing and police management. An examination of prejudices, myths, and discrimination, how to control them, and their effects on the police.
(3, 0) 3 credits

PS 218 Criminal Justice I
Elements and proof of frequent concern in law enforcement, with reference to principal rules of criminal liability. Importance of criminal law at the enforcement level is considered from crime prevention to courtroom appearance. Case analysis method is employed to study case precedents.
Prerequisite: PS 103
(3, 0) 3 credits

PS 219 Criminal Justice II
Rules of evidence of particular importance at the operational level in law enforcement, with emphasis on criminal procedure in important areas such as arrest, force, and search and seizure. Particular emphasis will be placed on the New York State Penal Law and Code of Criminal Procedure.
Prerequisite: PS 218
(3, 0) 3 credits

PS 226 Juvenile Delinquency
An introduction and an orientation to the causes and treatment of juvenile delinquency; an examination of the methods of handling juvenile offenders; police contact with offenders, including interviewing techniques, screening, and referrals to social agencies.
Prerequisite: PS 103
(3, 0) 3 credits

PS 227 Organized Crime
The historic roots of organized crime; the causal factors of organized crime in American society; the activities, organization and economics of organized crime; the problems of corruption and graft; and the development of strategies to control the activities of organized crime.
(5, 0) 3 credits

PS 250 Introduction to Probation and Parole
To prepare students for entry into the profession of Criminal Justice, essentially in the post-conviction aspects, and to explore our American system of justice administration as it affects those who have been adjudicated to be "offenders." To analyze society's mandate to "control" such persons and motivate them to change their social and legal attitudes, and thus to reintegrate them into society. The American system of Corrections is studied with a view to determining what changes and reforms are indicated by the evolving mandates of the Supreme Court as it updates the rights of all segments of our society, including the rights of offenders. Recidivism is analyzed and possible measures examined for reducing it.
(5, 0) 3 credits

PS 251 Criminology
A survey of the theories which attempt to account for deviate behavior from the time of Cesare deBaccaria to modern sociological theories, such as differential association and differential opportunity. This course deals with the anthropological theories, biological and economical determinism, glandular dysfunctions, psychological and psychiatric theories of behavior. Designed for probation parole and correction officers preparing for promotional civil service examinations at all levels.
(3, 0) 3 credits
PS 252 Probation and Parole II

Approaches to reintegration and resocialization in the American Criminal Justice system. Special focus on the role of probation and parole within the modern judicial structure; administration, judicial, professional and community attitudes; professionalization of procedures; confidentiality of records; needs for social service and current counseling techniques; personnel structure and client relationships; staff development; research budgeting; special services; civil rights; delinquency; restoration; warrants revocation and cancellation; decision-making; prediction tables and devices; current concepts concerning the sex offender, the addict, the alcoholic; work-release and furlough programs; half-way houses; interstate compacts; executive clemency and good conduct procedures.

(3, 0) 3 credits

RS 105 Organization of Community Recreation

Problems and practices in the organization of a community recreation program; the role of the sub-professional in a variety of settings (industrial, hospital, community) on-site visitation; care and maintenance of facilities and equipment, materials used in the program; clerical procedures involved in management.

(3, 0) 3 credits

RS 107 Arts and Crafts

Practice and discussion of methods of creating and teaching arts and crafts. Techniques will include use of paper, scrap, wood, clay, paint, etc. Development of lesson plans and budgets. Lab. fee.

(2, 2) 3 credits

PS 253 Introduction to Penal Administration

Penology as a segment of criminology; classical, neo-classical, positive and the "new" penology; procedures employed in custodial treatment; theory of rehabilitation; the penologist as practicing criminologist; types of correctional institutions; the prison community; the prison world as a source of information to police agencies; institutional orientation, classification, and preparation for return to society; post-institutional treatment plans; sentencing procedures; and various plans of correctional administration.

(3, 0) 3 credits

RECREATION LEADERSHIP

RS 100 Philosophy of Recreation

An introduction to the history of recreation and meaning of leisure time; scope of programs concerning various types of recreation agencies; an analysis of urban environment as dictated by the changing time.

(3, 0) 3 credits

RS 110 Recreations Skills & Techniques

Development of skills in recreational activities including indoor and outdoor activities; emphasis on leadership in games of low organization, relays, and tumbling.

(2, 2) 3 credits

RS 111 Recreation Skills & Techniques

Development of skills in recreation activities including outdoor and indoor activities; emphasis on games and activities of high organization, tournaments, special events and selected sports activities concerned with outdoor recreation.

(2, 2) 3 credits

RS 112 Officiating & Coaching Techniques

A course designed to teach recreation students methods of coaching and officiating major sports—football, basketball, softball, volleyball—includes laboratory practice of skills learned.

(2, 2) 3 credits
RS 205 Field Work in Recreation
Class discussion and supervised field work assignments in a variety of recreation agency settings; leadership skills in relationship to all age groups; student field reports and class discussion on different types of field experiences.
(1, 6) 4 credits

RS 210 Outdoor Recreation and Camping
History development and trends in outdoor recreation and camping. Analysis of programs as they apply to camps, parks, nature trails, Federal and State parks; living in the out-of-doors; camp counselor skills.
(3, 0) 3 credits

RS 212 Recreation for the Ill, Handicapped and Aged
Introduction to recreation in the promotion of health, prevention of illness and rehabilitation of persons with physical, emotional or social disorders; course includes backgrounds of recreation for the ill, handicapped and aged. Programs will include those for hospitals, nursing homes, institutions for the retarded, health agencies and community programs for the handicapped.
(3, 0) 3 credits

RS 213 Recreation Facility & Equipment Management
A course designed to provide the students with knowledge and ability of techniques of facility management, the make-up of various recreational facilities and visits to parks, museums, rinks, pools and golf courses. Recreation equipment will be studied with emphasis on need, types, quality and maintenance procedures.
(2, 2) 3 credits

RS 215 Skills in Cultural Arts
Visitation and discussion of various cultural areas of interest. Visits will include the theatre, museums, ballet, art galleries and plays.
(2, 2) 3 credits

SECRETARIAL SCIENCE

SS 101 Typewriting I
Fundamentals of touch typewriting and basic techniques; simple tabulation and letter placement.
(1, 3) 2 credits

SS 102 Typewriting II
Prerequisite: SS 101 or equivalent
(1, 3) 2 credits

SS 111 Stenography
Fundamental principles of Gregg shorthand and the application of these principles to an extensive shorthand vocabulary. Rapid reading of shorthand and introduction to dictation.
(2, 3) 3 credits

SS 112 Transcription I
Dictation and transcription from shorthand notes. Accuracy and speed in transcription techniques. Review of stenographic theory and improvement of shorthand vocabulary. Dictation speed ranges from 60-90 wpm.
Prerequisite: SS 111 or equivalent
(2, 3) 3 credits

SS 133 Office Machines
Efficient operation and use of adding and calculating machines (ten-key, full-key, rotary, key-driven), mimeograph and spirit duplicator, and dictating and transcribing equipment.
(1, 3) 2 credits

SS 201 Typewriting III
Development of speed and accuracy in advanced production work. Building of skill in typing office problem materials to meet business standards.
Prerequisite: SS 102
(1, 3) 2 credits
SS 211 Transcription II
Review of brief forms, phrasing, prefixes and suffixes, and reading from shorthand plates. Dictation speed ranges from 80-110 wpm, with a high degree of accuracy in transcribed material.
Prerequisite: SS 112
(2, 3) 3 credits

SS 212 Transcription III
Continuation of Intermediate Transcription. Dictation speeds from 100-130 wpm.
Prerequisite: SS 211
(2, 3) 3 credits

SS 213 Medical Terminology
Medical terminology developed through the use of stenographic roots, prefixes and suffixes. Vocabulary development related to musculo-skeletal and nervous systems; eye, ear, respiratory, circulatory, and gastro-intestinal systems.
Prerequisite: SS 112
(3, 0) 3 credits

SS 214 Legal Transcription
Legal secretarial production work. Dictation emphasizes legal vocabulary and preparation of legal papers, specific instruments, appealing cases, commercial collections. Dictation speeds from 110-140 wpm.
Prerequisites: SS 211; SS 240
(2, 2) 3 credits

SS 215 Medical Transcription
Training in advanced shorthand principles and transcription of medical reports, operative procedures, and autopsies. Emphasis on building speed in dictation and transcription of medical letters and case histories.
Prerequisites: SS 211; SS 213
(3, 5) 5 credits

SS 240 Legal Procedures I
Typical procedures, civil and criminal, in the judicial system. Training in developing secretarial skills for the law office. Law vocabulary, legal documents, pleadings and techniques for handling basic law office procedures.
(2, 2) 3 credits

SS 241 Legal Procedures II
Advanced law office procedures, calendaring and docketing of cases, briefs, litigation papers, probate, real estate practice, corporations.
Prerequisite: SS 240
(2, 2) 3 credits

SS 250 Office Practice
Principles of secretarial office techniques emphasized for the purpose of preparing the student to qualify as a potential high-level secretary.
(2, 2) 3 credits

SS 260 Production Transcription I
Training to develop the higher speed levels of dictation and transcription skills by using expert shortcuts. Speed dictation ranges from 120-150 wpm.
Prerequisite: SS 212
(2, 3) 3 credits

SOCIAL SCIENCES

SO 101 Introduction to the Social Sciences
A general survey of the nature of the social sciences, their aims, and methodology. Applications of social science studies are made to the areas of government, consumer economics, and to personal adjustment and societal problems.
(3, 0) No degree credit

Anthropology

Behavioral Social Sciences

SO 237 Introduction to Cultural Anthropology
Designed to develop an understanding of the basic concepts: value systems, ideologies, and operational structures that motivate the variety of behavior patterns of the human animal. Students will acquire insights into a diversity of life styles through extensive exploration of primitive, developing and contemporary cultures.
(3, 0) 3 credits
SO 238 Seminar in Cultural Anthropology

Designed to enable the student to explore major conceptual or analytical concepts related to human cultural and/or biological behavior patterns. The seminar is structured and conducted to analyze the integration of anthropological materials.

(3, 0) 3 credits
Prerequisite: SO 237, or permission of department chairman.

Psychology

SO 219 General Psychology I

This course presents basic concepts in the scientific study of interpersonal behavior. The content includes an introduction to learning, motivation, emotion, sensation, perception, thought and language. Each topic is considered within a psychological, behavioral, physiological and developmental framework.

(3, 0) 3 credits

SO 220 General Psychology II

This course presents basic concepts in the scientific study of interpersonal behavior. The content includes an introduction to child development, the normal and abnormal personality, therapy, social behavior and assessment. The application of psychology to broad human problems is also considered.

(3, 0) 3 credits

SO 232 Developmental Psychology I (Child)

The study of child development extends from conception through adolescence. Within each age range attention is given to factors influencing the intellectual, emotional, physical and social development of the child. General principles of development and special adjustment problems are also considered.

Prerequisite: SO 219 or SO 220, or permission of department chairman.

(3, 0) 3 credits

SO 233 Developmental Psychology II (Adolescent)

This study focuses on changes within the individual during the period of adolescence, and on society’s expectations regarding adolescent behavior. Issues of particular concern are those of preparation for an occupation, marriage, independence from parents and achieving a sense of self-identity. The physiological, sociological, familial, cultural and psychological influences are additionally explored.

Prerequisite: SO 219 or SO 220, or permission of department chairman.

(3, 0) 3 credits

SO 234 Social Psychology

This course introduces the student to the experimental study of behavior within social settings. Variables that influence such behaviors as competition, aggression, prejudice, obedience, authoritarianism, perception, conformity and leadership will be presented. In addition, the student will examine such processes as socialization, attitude change, social change and communication.

Prerequisite: SO 219 or SO 220, or permission of department chairman.

(3, 0) 3 credits

SO 235 Abnormal Psychology

A consideration of the development and characteristics of behavior disorders. Topics include: causes of abnormal behavior, personality reactions to stress, psychoneurotic disorders, the functional psychoses and therapeutic measures.

Prerequisite: SO 219 or SO 220, or permission of department chairman.

(3, 0) 3 credits

SO 236 Parapsychology

This course introduces the student to the study of psychic phenomena. Among the topics considered are telepathy, clairvoyance, precognition, psychokinesis and survival. An examination of these topics will be conducted within a context of the present “world view,” i.e., contemporary scientific methodology and its underlying assumptions. Alternative interpretations will also be considered.

(3, 0) 3 credits
Sociology

SO 222 Introductory Sociology
An introduction to the basic concepts necessary to the understanding of man as a social animal. Among the major topics considered are: normative systems, socialization, social stratification, the dynamics of group interaction, social change and methodology.
(3, 0) 3 credits

SO 223 Social Problems and Social Institutions
Designed to show the correlation between social institutions and normative behavior and how each affects the other. Among the major areas considered are: the family, religious ideologies, educational concepts, economic systems and political institutions.
Prerequisite: SO 222, or permission of department chairman
(3, 0) 3 credits

SO 224 Urban Sociology
An analysis of the trend, both national and international, toward increased urbanization and its concomitant problems. Among the topics considered are: the effects of changing values on institutional patterns, urban ecology, cultural lag, urban planning, intergroup relations, and population factors.
Prerequisite: SO 222, or permission of department chairman
(3, 0) 3 credits

SO 239 Minorities in American Society
An analysis and interpretation of dominant group relations with minority groups, within a sociological framework. Consideration is given to social policy and social action, with respect to dominant minority group interaction. Ethnic groups considered are: Mexican Americans, Puerto Ricans, Chinese Americans, Japanese Americans, Negroes, American Indians, and Jews.
(3, 0) 3 credits

Non-Behavioral Social Sciences

Economics

SO 206 Principles of Economics (Macroeconomics)
An introductory course which examines basic principles, the institutional framework, current problems and governmental policies applied to our economy. Topics discussed include: supply and demand analysis; market structures; the household, business and government sectors; classical theories and the Keynesian revolution; consumption, saving and investment functions; national income accounting; business cycle analysis; money and commercial banks; the Federal Reserve System; government finance; fiscal, monetary and incomes policies; economic growth; and ecology. Special attention is focused on relating these topics to contemporary affairs.
(3, 0) 3 credits

SO 207 Principles of Economics (Microeconomics)
An introductory course in price theory considering major economic problems in our domestic economy and in the international arena. Topics discussed include: supply and demand elasticity; marginal utility and indifference curve analysis; the pricing and production policies of the firm in pure competition; monopolistic competition, oligopoly and pure monopoly; marginal productivity and income distribution; pricing of factors; domestic problems of monopoly, anti-trust, the "military-industrial complex," labor unions and industrial relations, social welfare, agricultural problems and urban crises; international problems in financing international trade, international liquidity and the turmoil in international exchange rate structure, the balance of payments, regional economic integration, and the challenge of socialism and communism.
(3, 0) 3 credits
SO 208 Labor Economics

Designed to provide the student with a broad factual and conceptual background in labor economics. Topics explored include an examination of the composition of the labor force; factors affecting labor productivity; wage determination and wage structures; a history of the labor movement in the United States; the structure and strategies of labor unions; the impact of legislation on labor unions; collective bargaining procedures; and the new field of public employment labor relations.

(3, 0) 3 credits

Geography

SO 210 Political Geography

A study of the geographical characteristics of climate, size, location, shape and topography, in relation to the political organization of states and nations. Current major political and economic issues, as they relate to geography, are also examined.

(3, 0) 3 credits

SO 204 History of New York State

A course tracing the development of New York State, from its founding by the Indians to Dutch and English rule. Seventeenth and eighteenth century events are emphasized, and selected later developments are examined, in describing the role of New York in the further development of the United States.

(3, 0) 3 credits

SO 205 Economic History of the United States

A presentation and analysis of economic growth in the United States, emphasizing the four factors of production: land, labor, capital, and enterprise, and the role each factor has played in economic development. A thematic, rather than chronological approach is employed. Among the topics discussed are: national income, land policies, agriculture, labor, capital accumulation, business enterprise, manufacturing, marketing, and the contribution of government to economic growth in the United States.

(3, 0) 3 credits

SO 214 History of Western Civilization I

Following a brief survey of ancient and medieval institutions, this course presents an analysis of early modern Western civilization, from 1500 to the end of the Napoleonic era, with emphasis on the major political, economic and social developments.

(3, 0) 3 credits

SO 215 History of Western Civilization II

A continuation of SO 214, tracing the growth of the modern world, from the Congress of Vienna to the present. Also analyzes political, economic and social ideas and institutions fundamental to an understanding of contemporary civilization.

(3, 0) 3 credits

SO 227 History of Communism

A study and analysis of the works of selected historians and writers, on the evolution of socialist and communist theories and practice. Special attention is given to the ideological and social background of communist revolutions, totalitarian control over society, the evolution of Communist parties in the world today, and their relationship to the capitalist West.

(3, 0) 3 credits

SO 243 Black History

Traces the history of the black man, from his African background through slavery, the Civil War, Reconstruction and the emergence of Jim Crow laws. Additionally, northern migration, urbanization and the making of a ghetto are examined. The nature of prejudice against Blacks, approaches to the Black Revolution through the NAACP, the Urban League, CORE, BLACK Muslims, Black Nationalists, and the Black Panthers, are also discussed.

(3, 0) 3 credits

SO 244 Modern African History

A chronological survey of African history, from ancient African civilizations to the formation of modern African states. Major emphasis, in the course, is given to contemporary African issues and problems.

(3, 0) 3 credits
SO 247 Latin American History
Designed to increase understanding of the complexities of current Latin American policies and philosophies. The geographical, historical and cultural backgrounds of Latin American peoples are described. Latin American institutions are examined and their effect on the nature of government and people's understanding of government are also discussed. Finally, the role of Latin America in the contemporary world community is evaluated.
(3, 0) 3 credits

SO 211 Economic Geography
Shows how the location of man's economic activities is related to the production, exchange and consumption of goods and services. Current issues concerning world trade and commerce are examined in relation to the study of geography.
(3, 0) 3 credits

POLITICAL SCIENCE

SO 203 U.S. Foreign Policy
A study of United States foreign relations since World War II. Attention is focused on the constitutional and political context within which American foreign relations are formulated and implemented. Historical factors that have influenced a transition, from traditional isolationism to the adoption of policies of collective security, are also examined.
(3, 0) 3 credits

SO 217 American National Government
A description of the American system of government. Includes intensive studies of the executive, legislative and judicial branches of the national level of government. The office of the President, current leadership problems, administration, federalism, the role of interest groups, political parties, civil liberties and issues of American democracy are topics additionally discussed.
(3, 0) 3 credits

SO 218 Comparative Government
A comparative study of the political processes and governmental structure of major European nations and the Soviet Union. Emphasis is placed on comparing each nation's political system with others, and with the United States. Coverage is also given to the role of these nations in the world today.
(3, 0) 3 credits

SO 201 U.S. History to 1877
This course traces the development of the United States, from its English background through Reconstruction. It shows how a new civilization arose out of revolution, independence, new governmental institutions and equalitarianism. A second major theme deals with the causes and results of expansion. Final coverage analyzes both causes and consequences of the Civil War.
(3, 0) 3 credits

History

SO 206 Public Opinion and Propaganda
Discusses the properties, distribution and formation of public opinion. Questions reviewed include: how government affects the form and content of public opinion, and how public opinion may condition the manner, content and timing of public action. The scope and nature of propaganda are also examined, especially with regard to influences on the opinion and conduct of the American citizen.
(3, 0) 3 credits

SO 216 State and Local Government
This course develops an understanding of the structure, function and purpose of state and local political institutions. Special emphasis is centered on citizen participation in community affairs, and local political trends and problems. Some specific topics are: state constitutions, the governorship, state legislatures, state judicial systems, municipal and county government, justices and law enforcement, civil rights, political parties, and voting and elections.
(3, 0) 3 credits
SO 202 U.S. History Since 1877
Emphasizes an analysis of the American people's responses to the challenges and complexities of the last century. Themes covered include: the growth of an urban industrial society, immigration, contributions of ethnic groups, reform movements, America as a world power, the challenge of totalitarianism and the role of America in the modern world.
(3, 0) 3 credits

SO 248 History of Puerto Rico
A course describing the culture and civilization of Puerto Rico, from the time of its discovery to the present, and designed to provide an understanding of the Puerto Rican heritage. Economic and political developments, race relations, the influence of religion on the family, and economic and cultural contact with the United States, are also discussed.
(3, 0) 3 credits

SO 249 Non-Western Civilization: An Introduction
A broad survey of the forces and events that have contributed to the heritage of man, and the civilizations of contemporary Africa, India, Pakistan, Ceylon, China and Japan, since ancient times. Includes a discussion of the historical development and cultural significance of Hinduism, Buddhism, yoga and transcendental meditation.
(3, 0) 3 credits

SO 257 Labor History
History or Organized Labor, Early Organization and Development of the Modern Labor Movement. Legislation governing the Relations of Labor and Management. Leading cases arising from these laws. Leading issues of Present Day Labor Relations.
(3, 0) 3 credits
STATE UNIVERSITY OF NEW YORK

Board of Trustees

Mrs. Maurice T. Moore, B.A., LL.D., L.H.D., Chairman
New York City

James J. Warren, L.H.D., Vice Chairman
Albany

Robert R. Douglas, A.B., LL.B.
New York City

Manly Fleischmann, A.B., LL.B.
Buffalo

William D. Hasset, Jr., B.A., L.H.D.
Buffalo

Clifton W. Phalen, B.S., LL.D., L.H.D.
New York City

Mrs. Bronson A. Quackenbush, A.B.
Herkimer

John L. S. Holloman, Jr., B.S., M.D.
New York City

John A. Roosevelt, A.B.
Hyde Park

Oren Root, A.B., LL.B., LL.D.
New York City

Mrs. Edward Siegel, R.N.
Plattsburgh

Roger J. Sinnott, B.S.
Utica

Thomas Van Arsdale, B.E.E.
New York City

Darwin R. Wales, B.A., LL.B.
Binghamton

Don J. Wickham, B.S.
Hector

Chancellor of the University
Ernest L. Boyer, A.B., M.A., Ph.D., Litt.D., L.H.D., LL.D.

Secretary of the University
Martha J. Downey, B.S., M.A.

AGRICULTURAL AND TECHNICAL COLLEGE AT FARMINGDALE

College Council

Hon. Mortimer J. Gleeson, B.A., M.B.A., Chairman
Manhattan

Dr. Leon B. Applewhaite, B.A., LL.B., J.D., LL.M.
Manhasset

Dr. Charles P. Buckley, Jr., A.B., LL.B., J.D.
Freeport

Dr. Willis B. Carmean, Jr., A.B., LL.B. J.D.
Farmingdale

Dr. Joan J. Durante, B.B.A., LL.B. J.D.
Astoria

Hon. Anthony Mastroyanni, A.A.S., B.S.
Huntington Station

Hon. Edward Rejaunier
Mill Neck

Hon. John Sadlik
Douglaston

Dr. Howard Silverstein, B.A., LL.B. J.D.
Lake Success
ADMINISTRATION

CHARLES W. LAFFIN, JR.
President

MAURO S. ZULLI
Acting Vice President for Academic Affairs

FRANK A. CIPRIANI
Vice President, Administration

BERTHOLD D. WILLENBROCK
Vice President, Student Affairs

JAMES F. NIHAN
Vice President, Continuing Education

NOEL PALMER
Vice President, Urban Center

JOSEPH MONACO
Associate Vice President, Administration

FREDERICK J. WALSH
Acting Assistant Vice President for Academic Affairs

EUGENE O'NEILL
Dean of Instruction

PEARL BROD
Dean of Students

PAULA SHAER
Director of Admissions

MICHAEL J. MURPHY
Director, Personnel Affairs

ARTHUR H. MAYBIN, JR.
Director, Campus Planning

FRANK ELKINS
Director, Public Information

DOROTHY KAVASCH
Chief Librarian

D. DAVID CONKLIN
Assistant to President for Operations

OFFICE OF THE PRESIDENT

CHARLES W. LAFFIN, JR.
President
A.B., Colgate University; M.A., Syracuse University; Ed.D., New York University

D. DAVID CONKLIN
Assistant to the President for Operations
B.A., M.Ed., The Pennsylvania State University

ARTHUR H. MAYBIN, JR.
Director, Campus Planning
B.A.E., Clemson University

FRANK ELKINS
Director, Public Information

AUDREY ROBERTS
Secretary to the President
OFFICE OF THE VICE PRESIDENT FOR ACADEMIC AFFAIRS

MAURO S. ZULLI
Acting Vice President for Academic Affairs
B.A., Adelphi University; M.A., Professional Diploma, Columbia University

FREDERICK J. WALSH
Acting Assistant Vice President for Academic Affairs
B.A., M.S., St. John's University; Ph.D., New York University

EUGENE O'NEILL
Dean of Instruction
B.A., City College of New York; M.A., Ed.D., Columbia University

PETER T. WITTEMANN
Acting Associate Dean of Instruction
B.S., SUC, Buffalo; Ed.M., SUNY, Buffalo

WAYNE T. CLAVERING
Acting Registrar and Director of Registration
B.S., M.S., SUC Oneonta

GEORGE JACOBUS
Director of Audio Visual Services
B.A., Brooklyn College; B.E.E., University of Southern California; M.A., Columbia University

DOROTHY KAVASCH
Chief Librarian
A.B., Cornell University; M.S.L.S., Long Island University

OFFICE OF THE VICE PRESIDENT—ADMINISTRATION

FRANK A. CIPRIANI
Vice President—Administration
A.B., Queens College; M.A., Ph.D., New York University

JOSEPH MONACO
Associate Vice President—Administration
B.S., M.B.A., New York University

JOHN J. REILLY
Budget Control Officer
B.B.A., St. Francis College
M.B.A., L.I. University

JOHN T. COYNE
Director Institutional Research
B.S., Fordham University

HERBERT FLOOM
Assistant for University Financial Affairs
B.B.A., Pace College

WILLIAM BYRNE
Director Computer Center
B.B.A., St. Francis College

ROBERT J. WILBERT
Programmer Analyst
B.S., University of Maryland

CHARLES D. THOMPSON
Programmer Analyst
B.S., Hofstra University; M.S., Adelphi College; M.S., C.W. Post College

EILEEN DEGER
Assistant Manager, Data Processing

MICHAEL J. MURRAY, JR.
Director Personnel Affairs

EUGENE RUSSELL
Personnel Administrator

ROBERT F. DeVoe, Jr.
Bursar

LOUIS RISO
Assistant Director Business Affairs
B.A., St. Francis College

FRANK DELLAQUILA
College Accountant
A.A.S., State University of N.Y. at Farmingdale; B.B.A., Hofstra University
Office of the Vice President—Administration (Cont'd)

WALTER SCHNELL
Director of Security

MARGARET KENNIF
Financial Aids Advisor

WARNER MILLER
Purchasing

DAVID SILBER
Assistant Business Manager

JOSEPH SCHWARTZ
Director Campus Services

WILLIAM J. SQUIRES
College Physician
B.S., Trinity College; M.D., New York Medical College

ALAN J. FRAZITTA
College Physician
B.A., New York University; M.D., New York Medical College

HARRY F. ABE
College Physician
A.B., Oregon State University; M.D., Marquette Medical College

FRANK TELLER
College Physician
B.S., Long Island University; M.D., Middlesex University

ALAN STEIN
College Physician
A.B., Columbia College; M.D., New York University School of Medicine

WILMA H. SIECINSKI
Head Nurse
R.N., Lincoln School of Nursing, Bronx

MARY MULVYHILL
Staff Nurse
R.N., Columbia University Presbyterian Hospital School of Nursing

THELMA REID
Staff Nurse
Lincoln School of Nursing, Bronx

ANNE TAYLOR
Staff Nurse
R.N., Long Island College Hospital

SOPHIE WIELAND
Staff Nurse
R.N., Stanford Hospital School of Nursing

DONALD J. KELTON
Acting Exec. Director, Faculty Student Association

VERONA OARD
Director of Financial Aid
B.A., Washington University; M.A., Columbia University

PAUL R. SHAER
Director of Admissions
A.A., B.S., Boston University; M.S. in Ed., Hofstra University

VINCENT J. COLLURO
Assistant Director of Admissions
B.B.A., M.B.A., St. John's University

DONALD K. HARVEY
Senior Counselor, Admissions
B.A., M.S., C. W. Post College

BARBARA M. BURDMAN
Counselor, Admissions
B.S., in Ed., SUC, Oswego; M.S., C. W. Post College
RIC HABP W. FRANCE
Counselor, Admissions
A.A., Vincennes Jr. College; A.B., M.S., Indiana University

ANGELA M. MARCH
Counselor, Admissions
B.S., M.A., Howard University

BENJAMIN D. THOMAS
Counselor, Admissions
B.S., M.A., Bowling Green University

JEFFREY E. WEBER
Counselor, Admissions
B.A., Lehman College; M.A., Columbia University

RAMON RODRIGUEZ
Assistant Dean of Students for Special Programs
B.S., New York University; M.S., City College of New York

DANA TINNIE
Counselor, Special Programs
B.A., Dowling College

JOHN WILLIAMS
Counselor, Special Programs
A.A.S., SUNY, Farmingdale; B.S., Western Michigan University

F. GREG GOODRICH
Counselor, Disabled Students
B.A., M.S., W. Virginia Wesleyan College

LINDA HINES
Counselor, Disabled Students
B.S., SUNY, Buffalo; M.A., Ohio State University

COURTNEY O. McANUFF
Reading Assistant
The City College of New York

WILLIAM H. BREVOORT
Counselor, Academic
M.S. in Ed., Hofstra University; A.B., Cathedral College

HELEN E. CLARK
Counselor, Academic
B.A., Wilson College; M.A., New York University; M.S., C. W. Post College

JOHN B. JORDAN
Counselor, Academic
B.S., M.S., University of Scranton

JOHN PRYPUTNIEWICZ
Counselor, Academic
B.S., SUNY, Oswego; M.S., SUNY Albany

MARIA T. ZITO
Counselor, Academic
B.A., Hunter College; M.A., Columbia University; J.D., St. John’s University

THOMAS HINES
Director of Residence Halls
B.S., SUNY, Buffalo; M.A., Ohio State University

JACQUELINE CARTER
Counselor, Residence Halls
B.A., Western Michigan University

JAMES DURANT
Counselor, Residence Halls
A.S., SUATC, Farmingdale; B.S., Western Michigan University

DARYL GLOCKNER
Counselor, Residence Halls
B.A., SUNY, Buffalo; M.A., SUNY, Buffalo

CHRISTINE PALINSKI
Counselor, Residence Halls
B.A., St. Joseph’s College; M.S., SUNY, Albany

LAWRENCE PORTER
Counselor, Residence Halls
B.S., SUNY, Oswego; M.S., SUNY, Albany

RICHARD RING
Counselor, Residence Halls
B.A., St. Francis College; M.A., New School for Social Research

MICHAEL T. FLEMING
Director of Student Activities
B.S., SUNY, Brockport; M.A., SUNY, Albany; M.S., University of Bridgeport

MICHAEL MITURA
Assistant Director of Student Activities
B.A., Syracuse; M.S., SUNY, Cortland

171
OFFICE OF THE VICE PRESIDENT—CONTINUING EDUCATION

JAMES F. NIHAN
Vice President, Continuing Education
B.A., M.A., Los Angeles State College;
Ed.D., New York University

RONALD A. GERARD
Assistant Dean of Administration
B.B.A., University of Miami; M.S.,
Long Island University

ANTHONY J. MURPHY
Assistant Dean, Community Education
Program
A.B., Providence College; M.A.,
Roosevelt University; Ed.D., SUNY
Albany

MATILDA MILLER
Counselor
B.A., Barnard College; M.A.,
Professional Diploma, Columbia
University

JOSEPH J. LOCASCIO
Counselor
B.S., Seton Hall University; M.A.,
Columbia University

BARBARA H. POSNER
Counselor
B.S., M.A., New York University
OFFICE OF THE VICE PRESIDENT—URBAN CENTER

NOEL PALMER
Vice President, Urban Center
B.A., William Penn College; B.S., M.A., Columbia University

ABRAHAM HELFAND
Dean of Instruction
B.B.A., City University; M.A., Columbia University

HAROLD J. KUEBLER
Research & Development Coordinator
B.A., M.A., Northwestern University

JOHN S. PFRSEK
Business Officer
B.B.A., St. John’s University

MICHAEL P. ROBBINS
Student Personnel Director
B.S., Hobart College

DAVID H. GRODEN
Senior Counselor
B.A., Queens College; M.A., New York University

EUGENE GUERCIO
Associate Curriculum Advisor
B.S., C.W. Post

CHARLES BADOWSKI
Associate Curriculum Advisor
B.S., Manhattan College; M.S., New York University

MARTHA J. BERNING
Coordinator, Tutorial & Testing Services
B.A., Adelphi University

CHERYL CANTON
Counselor
B.S., State University of North Carolina

NEAL S. LEVY
Instructional Assistant
A.B., Rutgers College

RUTH GREENE
Outreach Counselor (Part Time)

BETTY YOURISH
Counselor (Part Time)
B.A., New York University; M.A., C.W. Post

DIVISION CHAIRMEN

ALBERT E. HAAS
Chairman of Business Division
B.Ed. in Com., Rider College; M.S. in Ed., University of Pennsylvania; Professional Diploma, Columbia University

JAMES O. IRWIN
Chairman of Technologies Division
B.Ed., Illinois State University; M.S., Hofstra University

WILLIAM J. REILLY
Chairman, Division of Arts and Sciences
A.B., St. Francis College; M.A., New York University; J.D., St. John’s University School of Law; Ph.D., St. John’s University

URSULA SCHWERIN
Chairperson, Human Services Division
R.D.H., A.A.S., New York City Community College; B.S., M.A., Ph.D., New York University

173
DOROTHY B. KAVASCH  
Chief Librarian  
A.B., Cornell; M.S.L.S., Long Island University

EVA B. LIEBERMAN  
Associate Librarian  
B.S., New York University; M.S.L.S., Long Island University

JUDITH C. BIRD  
Associate Librarian  
B.A., SUNY Oneonta; M.S.L.S., Long Island University

SYLVIA S. EWEN  
Associate Librarian  
B.A., Hunter College; M.S.L.S., Pratt Institute

CHARLOTTE SCHARF  
Associate Librarian  
B.S., Brooklyn College; M.S.L.S., Long Island University

M. PARKER VAN HOOGENSTYN  
Associate Librarian  
B.A., Amherst; M.S. ED., Hofstra; M.S.L.S., Long Island University

GERTRUDE GLASS  
Associate Librarian  
B.A., Hunter College; M.A. Columbia; M.S.L.S., St. John's University

CAROL GREENHOLZ  
Associate Librarian  
B.A., University of Denver; M.S.L.S., Long Island University

VALERIE MCKEE  
Associate Librarian  
B.A., University of Rochester; M.S.L.S., SUNY Geneseo

SUE H. SCHAPO  
Associate Librarian  
B.A., University of North Carolina; M.S.L.S., Long Island University

RONALD YOUNKINS  
Associate Librarian  
B.A., Nyack College; M.A., Columbia; M.S.L.S., Columbia

GWENDOLYN R. BARKLEY  
Assistant Librarian (PT)  
B.S., University of Wisconsin; M.S.L.S., Long Island University

JAMES F. BENNETT  
Assistant Librarian (PT)  
B.S., Elmira College; M.S.L.S., Long Island University

JAMES SHERRY  
Assistant Librarian (PT)  
B.A., King's College; M.S., Ed., Alfred University; M.S.L.S., Long Island University

SYLVIA TOMIN  
Assistant Librarian (PT)  
B.A., SUNY Stony Brook; M.S.L.S., Pratt Institute
FACULTY

Emeriti

HALSEY B. KNAPP, Director Emeritus
NORMAN FOOTE
GEORGE L. FRANKE
THOMAS D. GREENLEY
LEROY INGRAM
LOCKE JAMES
JOSEPHINE E. LUHAN
HOMER B. NEVILLE

MICHAEL J. ABBATIELLO
Professor of Biological Sciences
B.A., M.A., Hofstra University; Ph.D., St. John's University

FREDERICK P. ACEE
Assistant Professor of Physical Education
B.S., SUNY Cortland; M.S., Ithaca College

EDWARD I. ALCAMO
Associate Professor of Biological Sciences
B.S., Iona College; M.S., Ph.D., St. John's University

BARBARA J. AMSTER
Assistant Professor of Nursery Education
B.S., M.A. Queens College

BENGT A. ANDERSON
Associate Professor of Business Administration
B.B.A., Pace College; M.A., Professional Diploma, Columbia University.

DIANE ANDERSON
Instructor of English
A.B., Gettysburg College; M.A., Hofstra University

HARRY BABB
Assistant Professor, Police Science

SALVATORE BARBASSO
Professor of Mathematics
B.S.E.E., City College of New York; M.S.E.P., Polytechnic Institute of Brooklyn

ELFRIDA J. PHILIPS
EDWARD J. ROBERTS
ELIZABETH M. ROBERTS
JOSEPH F. ROESCH
ARCHIE A. STONE
DONALD E. WAITE
CARL F. WEDDELL

HARVEY E. BARKE
Professor of Biological Sciences
B.S., M.S., University of Massachusetts; Ph.D., University of Georgia

WALTER G. BECKER
Associate Professor of Agriculture
A.A.S., SUNY Farmingdale; B.B.A., Hofstra University; M.S., C.W. Post College

VICTOR I. BELLARD
Assistant Professor of Agriculture
A.A.S. B.S., SUNY, Delhi; M.A.T., Cornell, U. B.S., MAT

NAT BERTRAMI
Instructor, Recreation Supervision
A.A.S., S.U.A.T.C., Farmingdale; B.S., University of West Virginia

RAYMOND E. BIGLIANI
Instructor of Physics
B.S., Manhattan College; M.S., New York University

Z. A. BLACKMAN
Assistant Professor of Construction
B.A. Queens College, B.S.C.E. Polytechnic Inst. of Brooklyn; M.A. Columbia U., Reg. Land Surv., New York State

ROBERT C. BLANK
Professor of Social Science
B.B.A., Pace College; M.S., Hofstra University; M.A., St. John's University

ABRAHAM BLINDERMAN
Professor of English
B.A., Brooklyn College; M.A., Ph.D., New York University

RAYMOND G. BOGLIOLI
Professor of Business Administration
B.B.A., M.S. in Ed., Advanced Study Certificate, Hofstra University
DOROTHEA BRAFF  
Associate Professor of Secretarial Science  
B.S., M.A., Professional Certificate for Colleges, Columbia University

EDWARD BROWER  
Assistant Professor of Business Administration  
B.S., M.B.A., New York University; C.P.A.

ALAN R. BROWN  
Assistant Professor of Automotive Technology  
B.S., M.S. Iowa State University

GARY A. BROWN  
Instructor of Biological Sciences  
A.A.S., SUNY Farmingdale; B.S.A., M.S., Ph.D. University of Georgia

STEPHEN BROZAK  
Assistant Professor of Social Science  
B.A., New York University; M.A., Fordham

ELSIE BRYANT  
Assistant Professor of Social Science  
B.A., Talladega College; M.A., Columbia University

JOHN F. BURKART  
Assistant Professor of Biological Sciences  
B.S., M.A., City College of New York

GEORGE BYRD  
Assistant Professor of Automotive Technology  
B.S.A. University of Florida

THOMAS R. CAMPBELL  
Instructor of Mechanical Technology  
A.A.S., SUNY, Farmingdale; B.S., SUNY, Oswego

ALICE CASTLE  
Associate Professor of Secretarial Science  
B.S., College of New Rochelle; M.A., Columbia University (Teachers College); C.P.S.

JANET CARNESI  
Assistant Professor of English  
B.S., SUNY New Paltz; M.A., Queens College

FRANK J. CAVAIOLI  
Professor, Chairman, Social Science  
B.A., University of Tennessee; M.A., Ph.D., St. John’s University

GEORGE N. CAVIRIS  
Instructor of Physics  
B.S., M.S., Adelphi University

FRED CHERNOMAS  
Assistant Professor of Physics  
B.S., SUNY Stony Brook; M.S. Adelphi

YUEN S. CHINN  
Associate Professor of Physics  
B.S., City College of New York; M.A., Columbia University

WILLIAM A. CHRIST  
Professor, Dental Hygiene  
B.A., Hofstra University; D.D.S., Columbia University

ERIC CHRISTENSEN  
Professor of Biological Sciences  
B.S., Syracuse University; M.A., Hofstra University

MORTIMER CLINGAN  
Associate Professor of Mathematics  
B.S., New York University; M.A., Brown University

CATHERINE Y. CLOSE  
Instructor, Dental Hygiene  
A.A., Briarcliff College; B.S., Columbia University; M.S., University of Michigan

JEROME L. COHEN  
Assistant Professor of Aerospace Technology  
B.A. Hunter College; B.S. Poly. Inst. of Brooklyn

DAVID CONFORD  
Assistant Professor of English  
B.A., Hofstra University; M.A., University of New Mexico

JOHN G. COOGAN  
Associate Professor of Chemistry  
B.S. in Ch.E., University of Notre Dame

JACK COTY  
Assistant Professor of English  
A.B., Queens College
H. CRANDELL
Associate Professor of Construction Technology
B.S. City College; B.C.E. Oregon State Univ.; Prof. Engineer & Land Surveyor, New York State

MARGARET CRITCHTON
Assistant Professor, Nursery Education
A.B., Intermont College; M.A., Queens College

PHILIP CRUZ
Instructor of Foreign Languages
B.S., Adelphi University

R. H. CULVER
Associate Professor of Construction Technology

NORMA CURCHACK
Assistant Professor, Chairperson, Secretarial Science
A.B., Hunter College; M.A., Columbia University (Teachers College)

LAURIE DE COURCY
Assistant Professor of Social Science
B.A., Adelphi University; M.S., M.A., Hofstra University; Ph.D., New York University

MARY ANNA DE DOWITZ
Assistant Professor, Dental Hygiene
A.A.S., S.U.A.T.C., Farmingdale; B.A., University of North Carolina

THEODORE A. DE DOWITZ
Professor of Business Administration
B.S., Cornell University; M.B.A., Hofstra University

JOSEPH DE FALCO
Assistant Professor of Foreign Languages
B.A., M.A., St. Louis Theological Seminary, Naples; M.A. Fordham Univ.

BERNARD H. DEFRIN
Professor of Business Administration
B.S., M.A., New York University; Professional Diploma, Columbia University

PETER H. DELAND
Professor of English
B.S., M.A., Columbia University

WHEELER DENNIS
Assistant Professor of English
A.B., Harvard University; M.A. Adelphi University

ROBERT A. DENNISON
Professor, Chairman, Automotive Technology
B.S., Pennsylvania State Univ.; M.B.A. Hofstra University

RAFAEL M. DE SOTO
Assistant Professor of Advertising Art & Design
Undergraduate Study, University of Puerto Rico

LEO R. DILEELLO
Professor of Biological Sciences
B.S., M.S., Ph.D., University of Maryland

RONALD DOUGHER
Professor of Social Science
B.Ed., SUNY Oneonta; M.S., SUNY Albany; Prof. Dipl., Columbia University

RODNEY W. DOW
Instructor of Agriculture
A.A.S. & B.S. SUNY—Cobleskill; B.S., Murray State Univ.

DANIEL DOWD
Professor of Ornamental Horticulture
B.S. Syracuse University; M.A., Univ. of Cincinnati; MLA, Harvard University

EDWARD DYROFF
Assistant Professor, Recreation Supervision
B.A., M.A., Syracuse University

CHARLES H. EHLERS
Instructor of Agriculture
Certificate, SUNY, Farmingdale

ROBERT L. ELGART
Assistant Professor of Biological Sciences
B.S., Kings College; M.S., St. Johns University

SOFIA ELLSWORTH
Assistant Professor of Physical Education
B.S., New York University

JOHN ERDELL
Associate Professor of Advertising Art & Design
B.S., M.A., Professional Diploma, Columbia University
RICHARD I. GAME  
Professor, Chairman, Engineering Science  
B.E., Rensselaer Polytechnic Institute; M.A., Adelphi University

EDWARD GARCIA  
Associate Professor of Engineering Science  
B.C.E., M.C.E., City College of New York; M.A., Stony Brook; P.E.

WILLIAM J. GEORGE  
Associate Professor of Aerospace Technology  
FAA Cert., COMM.FL.INSTR. GED INSTR

RALPH A. GIANNOTTI  
Assistant Professor of Chemistry  
B.S., M.S., Ph.D., St. John's University

ANNE P. GILMORE  
Assistant Professor, Nursing  
B.S., Teachers College, Columbia University; M.Ed., Teachers College, Columbia University

ROBERT R. GLADWISH  
Assistant Professor of Advertising Art & Design  
B.F.A., Pratt Institute

BETH S. GOLDBERG  
Instructor, Dental Hygiene  
A.A.S., New York City Community College; B.S., New York University; M.S., Adelphi University

BERNARD GORDON  
Instructor of Mathematics  
B.S., M.S., Long Island University

EMYR GRIFFITH  
Professor of Mathematics  
A.B., M.A., University of Michigan

DONALD GRIFFITHS  
Professor Ornamental Horticulture  
B.S. Pennsylvania State Univ.; M.S. Hofstra University; RLA

RICHARD M. HALS  
Associate Professor of Advertising Art & Design Diploma, Cleveland School of Art; B.A., Adelphi University

NICHOLAS HARDING  
Assistant Professor of Mathematics  
A.A.S., SUNY Farmingdale; B.S., Hofstra University; M.S., Adelphi University

FRANCES HARRIS  
Instructor of Social Science  
A.B., Hunter College; M.S. City College of N.Y.

ROBERT HARTMAN  
Professor of Physical Education  
A.B., B.S., Columbia University

HANS L. HELMRECHT  
Assistant Professor of Chemistry  
AAS, SUNY Farmingdale; B.S., Fairleigh; Dickinson University; M.A., Hofstra University

JAMES HENDRIX  
Instructor of Graphic Arts  
A.A.S., Mohawk Community College; B.S., Oswego State College

KATHLEEN HERBERMANN  
Assistant Professor of Mathematics  
B.S., Queens College; M.S., Long Island Univ.

ROBERT HESS  
Assistant Professor of Physical Education  
B.S., M.S., Springfield College

CHERYL HICKS  
Instructor of Secretarial Science  

JAMES HIGGINS  
Assistant Professor of Data Processing  
B.S., Seton Hall University; M.S. Long Island University

HAROLD J. HIGHLAND  
Professor, Chairman, Data Processing  
B.S., M.S., City College of New York; Ph.D., New York University

K. HILBERT  
Professor of Agriculture  
D.V.M., Cornell

J. HILLMAN  
Assistant Professor of Construction Technology  
B.S. Pratt Institute Reg. Arch., New York State

ROGER G. HOFFMAN  
Assistant Professor of Social Science  
A.B., Brooklyn College; M.A., New York Univ.
JOHN W. HOLT  
Associate Professor of Mechanical Technology  
Diploma, SUNY, Farmingdale; B.S., Univ. of Missouri; M. Ind. Ed., Brigham Young Univ.

LOUIS HOWARD  
Professor, Chairman, Aerospace Technology  
B.S., Springfield College; M.A., New York Univ.; PROF-DIP; 6 yr. prog., N.Y.U./Hofstra

ALBERT HRABA  
Associate Professor of Aerospace Technology  
N.Y. State Vocational & Technical Teachers Cert.; FAA Certif.

JOHN W. HUNT  
Assistant Professor of Business Administration  
B.A., St. Francis College; M.S., SUC., Ononta

JOHN HYDE  
Professor, Chairman, Ornamental Horticulture  
B.S. Pennsylvania State U.; M.S. Michigan State U.

JOHN IMPAGLIAZZO  
Assistant Professor of Mathematics  
A.A.S., SUNY Farmingdale; B.S., St. John's University; M.S., SUNY Stony Brook

LEONARD ISEMONGER  
Associate Professor of Foreign Languages  
B.A., Florida State University; Diploma, University of Marburg, Germany; M.A., University of Alabama

LEE JACKNOW  
Assistant Professor of Engineering Science  
B.A., B.S.E.E., M.S.E.E., New York University

JOANNE JAFFE  
Instructor, Dental Hygiene  
R.D.H., Forsyth School for Dental Hygienists; A.S., Northeastern University; B.S., Columbia University

JUDITH K. JOHANSEN  
Instructor of Biological Sciences  
B.A., Adelphi University

ROBERT E. JOHNSON  
Associate Professor of Business Administration  
A.B., Manhattan College

CARLETON E. JUDD  
Associate Professor of Physics  
B.S., Eureka; M.S., University of Illinois

BURLON S. KALESKI  
Associate Professor of Business Administration  
B.B.A., City College of New York; M.S., SUNY-Albany

ARMAND KAMP  
Professor of Physics  
B.S.A.E., Purdue University; M.S. Fairleigh Dickinson; Professional Diploma, Columbia Univ.

TIMOTHY KARDA  
Assistant Professor of Photographic Technology  
B.S., Rochester Institute of Technology; M.A., Case Western Reserve University

ROBERT J. KEEGAN  
Professor of Mechanical Technology  
N.Y.S., Education Dept.

JANICE KELLER  
Assistant Professor of English  
A.B., Oberlin College; M.S.J., Northwestern University

ROBERT KELLY  
Associate Professor of English  
B.A., Pace; M.A., New York University

ROBERT KLEMFUSS  
Assistant Professor of Aerospace  
B.A. Adelphi College; M.A. New York University

GRACE J. KOHL  
Associate Professor, Nursing  
R.N., A.A.S., Queens College; B.S., New York University; M.A., New York University

JOHN KOSTANOSKI  
Instructor, Police Science  
A.A.S., S.U.A.T.C., Farmingdale; B.S., John Jay College of Criminal Justice

PAUL R. KRAMER  
Associate Professor of Physics  
B.A., Cornell University; M.S., Ph.D., Rutgers University
ROBERT J. LACNESE
Instructor of Automotive Technology
A.A.S., SUATC, Farmingdale; B.S.
S.U.C., Buffalo

STANLEY LAMBERG
Assistant Professor, Medical Laboratory
Technology
B.S., Brooklyn College; M.A., Oberlin;
M.S., Tufts University; Ph.D., New
York University

MICHAEL R. LAUDANTE
Professor of Mathematics
B.S., Polytechnic Institute of Brooklyn;
M.S., U.C.L.A.; P.E.

JOHN W. LAWRENCE
Professor of Agriculture
B.S. & M.S. Ohio State University;
Ph.D. Agric., Univ. of Florida

HOMER S. LEE
Assistant Professor of Social Science
B.A., National Institute of Political Sci-
ences, Chungking, China; M.B.A., New
York University

KAREN LEHMANN,
Instructor, Nursing
B.S., S.U.N.Y., Plattsburgh; M.S.,
Queens College

JOHN LEONARD
Assistant Professor of Social Science
B.S., Queens College; M.A., New York
University

INA LERNER
Assistant Professor of Mathematics
B.A., Hunter College; M.A., Columbia
University

JOHN M. LESTER
Assistant Professor of Electrical Tech-
nology
B.S. Penn State; B. in E.E., Brooklyn
Poly; M.S. in Eng. Sci., Clarkson

ALEX W. LEVEY
Professor of Electrical Technology
B.A., R.C.A. Institute; M.S., Hofstra
Univ.

IRVING LEVINE
Professor of Social Science
B.S., M.S., City College of New York

JOHN M. LIEBLANG
Instructor and Chairman, Mortuary
Science
B.S., Hofstra University; L.F.D., New
York State

HYMAN LIEBLICH
Associate Professor of English
B.A., M.A., Ph.D., New York University

HOU-SHUN LIEU
Associate Professor of Social Science
A.B. National Chungking University,
China; M.B.A., New York University

JOYCE P. LOPEZ
Instructor of Medical Laboratory
Technology
B.S., Wagner College; M.S., Adelphi
University

NICHOLAS LOSITO
Assistant Professor of Mathematics
B.S., Manhattan College; M.A., Ford-
ham University

ROBERT J. LOVELL
Professor of Advertising Art & Design
Certificate, Pratt Institute

PAUL LOVIZIO
Instructor of Social Science
A.A.S., SUNY Farmingdale; B.A., M.A.,
Hofstra University

E. NORMAN LURCH
Professor, Chairman, Electrical Tech-
nology
B.EE, New York Univ.; M.EE, New
York Univ.; PE, New York

PHILLIP P. LYNCH
Associate Professor, Police Science
B.A., Bonaventure University; B.S., St.
John's University; M.A., New York
University

BERNARD R. MALARA
Associate Professor of Physics
B.S., M.S., Fordham University

CHRISTINE MARASA
Assistant Professor of Physical Educa-
tion
B.S., M.A., New York University

CAROL MARCUS
Assistant Professor, Nursing
R.N., B.S., Adelphi University; M.S.,
Adelphi University

ROBERT V. MARK
Instructor of Chemistry
B.S., M.S., Ph.D., St. John's University

PANAYOTIS MAVROMMATIS
Professor, Chairman, Mathematics
B.S., North Carolina State University;
M.A.T., Duke University
EDMUND M. MAYER
Professor of Mechanical Technology
B.M.E., C.C.N.Y.; M.M.E., C.C.N.Y.;
Prof. Degree (M.E.) Columbia

HARRIET MAYER
Instructor, Dental Hygiene
R.D.H., Forsyth; B.S., M.S., Columbia University

CORNELIUS MCADOREY
Professor of English
B.A., St. Francis College; M.A., New York University

MARYROSE MCCRYSTAL
Assistant Professor of English
B.A., Adelphi University; M.A., Columbia University

JAMES J. McGOVERN
Assistant Professor of Physics
B.S., Iona College; M.S., Rensselaer Polytechnic Institute

GEORGE G. MCKENNA
Assistant Professor, Chairman, Police Science
A.B., J.D., Fordham University; LL.M., Catholic University of America

ALBA MCKEON
Instructor of Foreign Languages
B.A., Queens College; M.A., University of Kansas

GEORGE McLAIN
Instructor of English
B.A., Hofstra University

JOHN MCNEFF
Assistant Professor of Business Administration
B.S., M.A., Fordham University; M.B.A., New York University

JOSEPH MCPHEE
Assistant Professor of Biological Sciences
B.A., Columbia College

STANLEY P. MEHLHMAN
Associate Professor of Chemistry
B.A., Hunter College; M.S., New York University

CHARLES E. METZROTH, JR.
Instructor, Mortuary Science
L.F.D., New York State; B.A., St. Michael's College, Vermont

F. MEYER
Assistant Professor of Construction Technology

HUBERT A. MIKKELSEN
Professor of English
B.A., Union College; M.A., St. John's University

WILLIAM H. MOORE, Sr.
Associate Professor of Automotive Technology
B.S. Drexel Inst. of Technology; Certificate, Boeing School of Aeronautics

PHILIP L. MORRISON
Assistant Professor of Chemistry
B.A. Bowling Green State University; M.A., SUNY Stony Brook

JOSEPH R. MURRAY
Professor of Mathematics
B.A., St. John's University

JOSEPH R. MURRAY
Professor of Mathematics
B.A., Union College; M.A., New York University

NAOMI NEUMANN
Assistant Professor of Biological Sciences
B.S., Brooklyn College; M.S., Adelphi University

PETER J. NOLAN
Professor, Chairman of Physics
B.S., Manhattan College; M.S., Adelphi University

LEILA ODUM
Assistant Professor, Nursery Education
A.B., New York University; M.A., Adelphi University
EDWIN ORE  
Professor, Chairman of English  
B.S. West Chester State College, Pa.; M.A., Duquesne University; Ed.D., Columbia University

LEROY PARSONS  
Instructor of Automotive Tech.  
A.A.S., SUNY Farmingdale

ELLEN PAN  
Associate Professor, Nursery Education  
A.B., Central University; M.A., Columbia University; Professional Diploma, Columbia University

FRANCIS PELLEGRINI  
Professor of Advertising Art & Design  
B.A., Manhattan College; M.A., Adelphi University

FRANK C. PELLEGRINI  
Assistant Professor of Chemistry  
B.S., M.S., Ph.D., St. John's University

ALPHONSE PERRY  
Assistant Professor of Automotive Technology  
A.A.S., SUATC, Farmingdale

R. PETRARCA  
Professor of Construction Technology  
B.C.E., Polytechnic Inst. of Bklyn; Master C.E., Poly, Inst.; Prof. Engr., New York State

DASHAMIR M. PETRELA  
Professor of Electrical Technology  
B.A.Sc., University of Toronto; M.S.E.E., Poly Inst. of Bklyn; Ph.D., Colorado State Univ.

RICHARD J. PFEIFFER  
Professor, Chairman, Business Administration  
SUNY-New Paltz  
B.S., M.A., Professional Diploma, Columbia University

WILLIAM PFEIFFER  
Instructor of Food Technology  
A.A.S., SUNY; B.B.A., Hofstra

WILLIAM C. PFISTER  
Professor of Chemistry  
B.Ch.E., Pratt Institute; M.A., Columbia University

GERALD F. PHILAN  
Assistant Professor of English  
B.A., Houghton College; B.D., Western Theological Seminary

NANCY PHILIPS  
Instructor of Social Science  
B.A., Hofstra University; M.A., New York University

HAROLD PLAUT  
Assistant Professor of Graphic Arts  
B.A., Brooklyn College; M.A., Columbia University

MAURICE PLOTKIN  
Associate Professor of Electrical Technology  
B.E.E., C.C.N.Y.; M.S. Hofstra Univ.

ELLIOTT POLANSKY  
Associate Professor of Aerospace Technology  
B.S. New York University; M.A. New York University

ANN MARIE POWERS  
Instructor of Social Science  
A.A.S. SUNY Farmingdale; B.A., M.A. SUNY Albany

DOMENICK A. PUGLIESE  
Associate Professor of Photographic Technology  
B.S., City College of New York; M.A., New York University

YESHWANT K. PURANDARE  
Associate Professor of Chemistry  
B.Sc., University of Bombay; M.Sc., University of Poona; M.S., Fordham University

JOHN M. PURCELL  
Professor of Business Administration  
B.S., Bloomsburg State College; M.A., New York University; Professional Diploma, Columbia University

LOUIS L. PYENSON  
Professor, Chairman, Biological Sciences  
B.S., University of Massachusetts; M.S., Rutgers, The State University; Ph.D., Cornell University

FRANK S. PYNE  
Professor of Air Conditioning Technology  
B.M.E., Clarkson; M.S., Hofstra; Prof. Engr., State of N.Y.

LOIS RAFENSKI  
Assistant Professor, Nursing  
R.N., A.A.S., S.U.A.T.C., Farmingdale; B.S., Adelphi University; Ed.M., Columbia University

183
SUSAN SILVERA  
Instructor of Data Processing  
B.S., M.S., SUNY-Stony Brook

PHILIP SILVERSTEIN  
Associate Professor of Dental Hygiene  
B.A., New York University; D.D.S., Columbia University

MICHAEL C. SMILES  
Instructor of Biological Sciences  
B.A., Adelphi University; M.A., Oregon State University

GLENN M. SMITH  
Associate Professor, Chairman of Photographic Technology  
Sc.B., Dickinson College

LEROY T. SMITH  
Professor of Secretarial Science  
M.B.E., University of Colorado; B.S., Thiel College; Secretarial Certificate, Point Park College

TERRY SMITH  
Assistant Professor of Mathematics  
B.S., Ball State University; M.S, C.W. Post College

PAUL SOHL  
Associate Professor of Mathematics  
A.B., M.S., Adelphi University

T. SOONTUP  
Associate Professor of Construction  

JOAN SPOHR  
Instructor of Mathematics  
B.S., SUNY Cortland; M.S., Adelphi University

GERHARD R. SPORY  
Assistant Professor of Biological Sciences  
B.A., Marietta College; M.S., Ph.D., Ohio State University

CLARENCE STAHLMAN  
Professor, Chairman, Food Technology  
B.S., Kansas State; M.S., Hofstra

BARBARA HELLER STEINBAUM  
Professor, Chairman, Nursing  
R.N., B.S., Boston University; M.S., Adelphi University; Ed.M., Ed.D., Teacher's College, Columbia University

EDWARD STEPPE  
Assistant Professor of Ornamental Horticulture  
A.A.S., SUATC, Farmingdale; B.S., Univ. of Georgia; M.A, State U. of Stony Brook

ROBERT R. STOCKBRIDGE  
Professor, Chairman, Agriculture  
B.V.A., U. of Massachusetts; M.S., Hofstra Univ.

MILDRED STRASSBERG  
Assistant Professor of English  
B.A., Brooklyn College; M.A., University of Missouri; Ph.D., SUNY Stony Brook

CHARLES STROUB  
Instructor of Ornamental Horticulture  
A.A.S., SUATC, Farmingdale; B.A., C.W. Post College

SHARON STRUMINGER  
Instructor, Dental Hygiene  
A.A.S., S.U.A.T.C., Farmingdale; B.S., New York University

EVE MARIA STWERTKA  
Assistant Professor of English  
A.B., Bard College; M.A., Columbia University

VIRGINIA SULLIVAN  
Instructor of English  
B.A., Rosemont College; M.A., Columbia Univ.

DONALD M. SWAN  
Assistant Professor of Biological Sciences  
A.A.S., SUNY Farmingdale; B.A., Hofstra University; M.S., Long Island University

GEORGE SWEENEY  
Professor of Social Science  
B.S., Fordham; M.A., New York University; Prof. Diploma, Columbia University

AL. TAKACS  
Associate Professor of Ornamental Horticulture  
A.A.S., SUATC, Farmingdale; B.S., Cornell University

OTTO W. TAYLOR  
Professor of Business Administration  
B.B.A., Clarkson College; M.B.A., New York University
KENDALL P. THOMAS  
Professor and Chairman, Dental Hygiene  
B.S., Middlebury College; M.S., D.D.S., University of Michigan

CHARLES THOMPSON  
Assistant Professor of Data Processing  
B.S., University of Nebraska; M.B.A., Rochester Institute of Technology

MORTON THOMPSON  
Professor, Chairman, Recreation Leadership  
B.S., M.A., Ed.D., New York State University

C. DICK THOMSON  
Professor of English  
B.A., SUNY New Paltz; B.S., New York University; M.A., Columbia University

NANCY C. THOMSON  
Assistant Professor of Mathematics  
B.A., Trenton State College; M.S., Adelphi University

JOHN TIEDEMANN  
Assistant Professor of Air Conditioning Technology  

STEVE S. TOWNER  
Assistant Professor of Advertising Art & Design  
B.F.A., University of Pennsylvania; M.S., Queens College

WINIFRED B. TRAKIMAS  
Associate Professor of Biological Sciences  
A.B., Seton Hall College; M.S., Ph.D., Fordham University

RUSSELL TUTHILL  
Professor of Advertising Art & Design  
A.A.S., Farmingdale; B.A., Adelphi University; M.A., Queens College; Ed.D., New York University

JOSEPH A. URSINO  
Professor, Chairman, Chemistry  
B.S., M.S., Ph.D., St. John's University

JOSEPH VALLA  
Associate Professor of Aerospace Technology  
B.S., Penna State Univ.; M.S., Penna. State Univ.

MICHAEL J. VINCIGUERRA  
Assistant Professor of Chemistry  
B.S., Iona College; M.S., Ph.D., Adelphi University

P. JOSEPH VISCO  
Instructor of Agriculture  
SUNY, Farmingdale, Cornell

JOSEPH N. WALDRON  
Assistant Professor of Chemistry  
B.S., St. Francis College; B.Ch.E. Polytechnic Institute of Brooklyn

RAYNOR W. WALLACE  
Professor of English  
A.B., Dickinson; M.A., Columbia University

EDWIN WALLKAM, JR.  
Instructor of Agriculture  
SUNY

THOMAS WATT  
Professor of Physical Education  
B.S., Springfield College; M.A., Columbia University

ROBERT WEINSTEIN  
Instructor of Business Administration  
B.S., M.B.A., University of Rochester; C.P.A.

JACQUES WEISER  
Assistant Professor of English  
B.S., Long Island University; A.M., New York University

PHYLLIS WEISS  
Assistant Professor, Nursery Education  
A.B., Brooklyn College; M.A., New York University

COZETTA WESTON  
Assistant Professor of English  
A.B., Winston Salem State University; M.A. North Carolina Central State Univ.

HARRIET WILLIAMS  
Associate Professor, Medical Laboratory Technology  
B.A., M.A., Brooklyn College; City University of New York.
ROBERT S. WILLIAMS
Associate Professor of Mechanical Technology
B.S.M.E., Bucknell Univ.; M.S. Hofstra College

LAWRENCE WILLS
Assistant Professor of Business Administration
B.S., Long Island University; M.S., Hofstra University

PAUL WOLOTKIN
Professor of Data Processing
B.A., M.B.A., Syracuse University

HERBERT J. ZIPPER
Professor of Electrical Technology
B.S., St. John’s Univ.; M.A. Hofstra Univ.

PAUL KORNFELD
Pathology, Dental Hygiene
D.D.S., University of Buffalo; U.S. Veterans Hospital, Northport

ADJUNCT PROFESSIONAL STAFF

WILLIAM BENJAMIN
Community Service Assistant Dept., Director, Babylon Project, Suffolk County Probation Department, Field Supervisor

NOELLE BURKS
Community Service Assistant Dept., Assistant Director, Staff Development and Training Dept., Dept. of Social Services, Nassau County—Coordinator of Field Supervision

LEON EISENBUDD
Clinical Dental Hygiene
D.D.S., New York University; L.I. Jewish Hospital

LOUIS R. FERRARO
Medical Laboratory Technology
M.D., N.Y.U. Medical College; F.C.A.P. Director of Pathology, Nassau Hospital

ARTHUR FRIEDLANDER
Dental Hygiene

NATHAN KAUFFMAN
Community Service Assistant Dept., Director of Social Services, Veterans Administration Hospital, Northport, Coordinator of Field Supervision

WILLIAM BENJAMIN
Community Service Assistant Dept., Director, Babylon Project, Suffolk County Probation Department, Field Supervisor

NOELLE BURKS
Community Service Assistant Dept., Assistant Director, Staff Development and Training Dept., Dept. of Social Services, Nassau County—Coordinator of Field Supervision

LEON EISENBUDD
Clinical Dental Hygiene
D.D.S., New York University; L.I. Jewish Hospital

LOUIS R. FERRARO
Medical Laboratory Technology
M.D., N.Y.U. Medical College; F.C.A.P. Director of Pathology, Nassau Hospital

ARTHUR FRIEDLANDER
Dental Hygiene

NATHAN KAUFFMAN
Community Service Assistant Dept., Director of Social Services, Veterans Administration Hospital, Northport, Coordinator of Field Supervision

PAUL KORNFELD
Pathology, Dental Hygiene
D.D.S., University of Buffalo; U.S. Veterans Hospital, Northport

WILLIAM BENJAMIN
Community Service Assistant Dept., Director, Babylon Project, Suffolk County Probation Department, Field Supervisor

NOELLE BURKS
Community Service Assistant Dept., Assistant Director, Staff Development and Training Dept., Dept. of Social Services, Nassau County—Coordinator of Field Supervision

LEON EISENBUDD
Clinical Dental Hygiene
D.D.S., New York University; L.I. Jewish Hospital

LOUIS R. FERRARO
Medical Laboratory Technology
M.D., N.Y.U. Medical College; F.C.A.P. Director of Pathology, Nassau Hospital

ARTHUR FRIEDLANDER
Dental Hygiene

NATHAN KAUFFMAN
Community Service Assistant Dept., Director of Social Services, Veterans Administration Hospital, Northport, Coordinator of Field Supervision

WILLIAM BENJAMIN
Community Service Assistant Dept., Director, Babylon Project, Suffolk County Probation Department, Field Supervisor

NOELLE BURKS
Community Service Assistant Dept., Assistant Director, Staff Development and Training Dept., Dept. of Social Services, Nassau County—Coordinator of Field Supervision

LEON EISENBUDD
Clinical Dental Hygiene
D.D.S., New York University; L.I. Jewish Hospital

LOUIS R. FERRARO
Medical Laboratory Technology
M.D., N.Y.U. Medical College; F.C.A.P. Director of Pathology, Nassau Hospital

ARTHUR FRIEDLANDER
Dental Hygiene

NATHAN KAUFFMAN
Community Service Assistant Dept., Director of Social Services, Veterans Administration Hospital, Northport, Coordinator of Field Supervision

PAUL KORNFELD
Pathology, Dental Hygiene
D.D.S., University of Buffalo; U.S. Veterans Hospital, Northport

WILLIAM BENJAMIN
Community Service Assistant Dept., Director, Babylon Project, Suffolk County Probation Department, Field Supervisor

NOELLE BURKS
Community Service Assistant Dept., Assistant Director, Staff Development and Training Dept., Dept. of Social Services, Nassau County—Coordinator of Field Supervision

LEON EISENBUDD
Clinical Dental Hygiene
D.D.S., New York University; L.I. Jewish Hospital

LOUIS R. FERRARO
Medical Laboratory Technology
M.D., N.Y.U. Medical College; F.C.A.P. Director of Pathology, Nassau Hospital

ARTHUR FRIEDLANDER
Dental Hygiene

NATHAN KAUFFMAN
Community Service Assistant Dept., Director of Social Services, Veterans Administration Hospital, Northport, Coordinator of Field Supervision

WILLIAM BENJAMIN
Community Service Assistant Dept., Director, Babylon Project, Suffolk County Probation Department, Field Supervisor

NOELLE BURKS
Community Service Assistant Dept., Assistant Director, Staff Development and Training Dept., Dept. of Social Services, Nassau County—Coordinator of Field Supervision

LEON EISENBUDD
Clinical Dental Hygiene
D.D.S., New York University; L.I. Jewish Hospital

LOUIS R. FERRARO
Medical Laboratory Technology
M.D., N.Y.U. Medical College; F.C.A.P. Director of Pathology, Nassau Hospital
MARY O'HAGEN  
Community Service Assistant Dept.,  
Social Work Director, Board of Cooperative Educational Services, Dix Hills, Coordinator of Field Supervision

EUGENE PURILLO  
Community Service Assistant Dept.,  
Social Worker, Suffolk State School; Field Supervision

HERBERT RUBINSTEIN  
Community Service Assistant Dept.,  
Director, Training Division, Dept. of Social Services, Suffolk County—Coordinator of Field Supervision

FREDERICK SPECTOR  
Medical Laboratory Technology  
M.B., M.D. Chicago Medical School; Diplomat American Bd. of Pathology; F.C.A.P. Director Departments of Pathology and Nuclear Medicine, Long Beach Memorial Hosp.

LOIS VANDERPOEL  
Community Service Assistant Dept.,  
Chief Psychiatric Social Worker, Central Islip State Hospital, Coordinator of Field Supervision

DOROTHY WALBRIDGE  
Community Service Assistant Dept.,  
Acting Director of Social Services, Pilgrim State Hospital, Coordinator of Field Supervision

EDWARD C. ZAINO  
Medical Laboratory Technology  
M.D. Hahnemann Med. College; F.A.C.P., Director of Laboratories, Mercy Hospital

TECHNICAL ASSISTANTS

MARGARITA AYALA  
Technical Assistant of Dental Hygiene  
A.A.S., S.U.A.T.C., Farmingdale

JOHN BERNHARDT  
Physics  
A.A.S., SUNY Farmingdale

EUGENE A. BUCK  
Technical Assistant of Agriculture

SAM CARRUBBA  
Technical Assistant of Agriculture

ALDO CONTI  
Technical Assistant of Automotive  
A.A.S., SUNY, Farmingdale

LOUIS DIEFENBACH, JR.  
Technical Assistant of Aerospace  
A.A.S., SUNY, Farmingdale

ALBERT J. DODORICO  
Technical Assistant of Aerospace  
F.A.A. Certified; A & P

ROBERT DOMAN  
Technical Assistant of Photographic Technology  
A.A.S., Farmingdale

CAROL DOMBRONSKI  
Technical Assistant of Food Technology  
A.A.S., SUNY, Farmingdale

STANLEY DOSKOTZ  
Technical Assistant of Ornamental Horticulture  
Diploma, Univ. of Mass.

GARY N. DOW  
Biological Sciences  
A.A.S., Suffolk Community College; B.A., Dowling College

FLORY GIANFACNA  
Technical Assistant  
Diploma (Ornamental Horticulture); SUATC, Farmingdale

RONALD HESSELLAAR  
Biological Sciences  
B.A., Queens College

REES K. KLEMISH  
Chemistry  
A.A.S., SUNY Farmingdale

THERESA LUCK  
Technical Assistant of Community Service  
A.A.S., S.U.A.T.C., Farmingdale

NATHAN MICHAELS  
Technical Assistant of Mortuary Science  
A.A.S., S.U.A.T.C., Farmingdale; L.F.D., New York State

HENRY NESTLER  
Ornamental Horticulture  
A.A.S. SUATC, Farmingdale; B.S. Cortory Technology

DIANNE O'BRIEN  
Technical Assistant of Medical Laboratory Technology  
A.A.S., S.U.A.T.C., Farmingdale
Lillian E. Roeder  
Chemistry  
A.A.S., SUNY Farmingdale

Calvin Struck  
Technical Assistant of Agriculture  
A.A.S., SUNY, Farmingdale

Michael W. Sullivan  
Technical Assistant of Agriculture  
A.A.S., SUNY, Farmingdale

Dorothy Swan  
Technical Assistant of Secretarial Science  
B.A., Queens College

William Taussig  
Technical Assistant of Advertising Art & Design  
A.A.S., Farmingdale

William F. Tobin  
Technical Assistant of Mechanical

George A. Unger  
Technical Assistant of Electrical

Kathleen Wilson  
Technical Specialist of Nursing  
R.N., A.A.S., S.U.A.T.C., Farmingdale

Ornamentals Research Laboratory

Arthur Bing  
Director, Professor, Department of Floriculture and Ornamental Horticulture, Cornell  
B.S., U. of Connecticut; Ph.D., Cornell University

C. E. Williamson  
Asst. Prof. Dept. of Plant Pathology, Cornell University  
B.A., Wabash College; Ph.D., Cornell University

George V. Johnson  
Entomologist U.S. Dept. of Agriculture  
B.S., Ohio State University; M.S., Oklahoma A & M College

Finn Andreason  
Experimentalist  
A.A.S., S.U.N.Y., Farmingdale

Joan Briggs  
Laboratory Assistant  
A.A.S., S.U.N.Y., Farmingdale

Nematode Research Laboratory

J. Everett Dodge  
B.S., Cornell University

H. C. Newman, III  
A.A.S., SUNY, Farmingdale

Patricia M. Frino  
A.A.S., SUNY, Farmingdale

Angelina B. Yutzler  
B.A., University of Georgia
ADVISORY COMMITTEES

In order to keep the instructional program constantly up-to-date and responsive to the needs of industry and business, the College relies on Advisory Committees. The members of these committees serve as consultants and advisors to the several departments, with special regard to new applications of science and technology, new methods and materials, and trends in employment. The College is fortunate in having this continuing association with so many leaders in business, industry, and the professions.

(Equal Opportunities)

PRESIDENT'S ADVISORY COMMISSION

Mr. Herbert Bienstock, Regional Director, United States Department of Labor, Bureau of Labor Statistics, 341 Ninth Avenue, New York, New York

Mrs. Lucille Breach, Nassau County Economic Opportunity Commission, 320 Old Country Road, Garden City, New York

Mr. Cleveland Johnson, Asst. Deputy County Executive, Suffolk County, County Center, Veterans Memorial Highway, Hauppauge, New York

Mr. Ismael Colon, 31 Fairtown Road, Bay Shore, New York

Mr. Mel Jackson, Director, Long Island CORE, 76 Wellington Street, Hempstead, New York

Mr. Daniel Knowles, Director of Personnel, Grumman Aerospace Corp., South Oyster Bay Road, Plant 28, Bethpage, New York

Rev. Richard B. Martin, Suffragan Bishop, 1388 Union Street, Brooklyn, New York

Mr. George Meyer, Deputy Commissioner, Suffolk County Department of Labor, Veterans Memorial Highway, Hauppauge, New York

Mr. James D. Rice, Director of Human Rights Commission, Executive Building, Old Country Road, Mineola, New York

ADVERTISING ART & DESIGN

Mr. Karl Bernhard, 556 Commercial Avenue, Garden City, New York

Mr. Robert H. Blend, Griswold-Eshleman Company, 625 Madison Avenue, New York, New York

Mr. Alfred F. Chiesa, President, Chiesa Adv., Inc., 420 Lexington Avenue, New York, New York

Mr. Walter Hutt, Communigraphics, 7600 Jericho Tpke., Woodbury, New York

Mr. Fred Labitke, Vice President, Art Director, Charles Heston Associates, Inc., 6 East 59th Street, New York, New York

Mr. Peter S. Loonian, 41 Anchor Drive, Massapequa, New York

Mr. Harry Rocker, Harry Rocker Association, 22 Green Meadow Lane, Huntington, New York

GRAPHIC ARTS & ADVERTISING TECHNOLOGY

Mr. Frank C. Beckert, President, BMS Ltd., 3375 Park Avenue, Wantagh, New York

Mr. Kenneth B. Van de Water, President, Sentinel Printing Company, 55 Chasner Street, Hempstead, New York

Mr. A. J. Brown, Jr., 115 Huntington Road, Port Washington, New York

Mr. Jack Turchon, President, Keymatic Data Systems Corp., 56 Penataquit Avenue, Bay Shore, New York

Mr. Fred D. Alter, 12 Shelart Street, Plainview, New York
AEROSPACE TECHNOLOGY

Mr. Henry L. Boerner, Director, Public Relations, Long Island Railroad, Jamaica, New York

Mr. George H. Christensen, Supervising Inspector, F.A.A. General Safety District Office, Bldg. 53, Republic Airport, Farmingdale, New York

Mr. Anthony Gambino, President, Allied Airmotive, Inc., 555 Comac Road, Deer Park Airport, Deer Park, New York

Mr. Edward Gibbs, President, Negro Airman International, Inc., P. O. Box 192, Westbury, New York

Mr. Edwin Lyons, President, Amityville Flying Service, Zahn’s Airport, Amityville, New York

Mr. Alfred Pasquale, Prin. Maintenance Inspector, F.A.A. General Aviation District Office, Bldg. 53, Republic Airport, Farmingdale, New York

Mr. James T. Pyle, Director, Aviation Development Council, 324 Hangar #2 (U.A.L.), LaGuardia Airport, Flushing, New York

Mr. Milton W. Horowitz, Queens College, Department of Psychology, Flushing, New York

AGRICULTURE

Mr. Louis H. Amsler, Richter Orchard, Pulaski Road, Northport, New York

Mr. Harrison M. Demarest, Jr., Main Road, Orient, New York

Mr. Nelson D. Houck, Long Island Duck Farmers Co-op, Eastport, New York

Mr. James A. Jordan, Lauchner Motors, Wellwood Avenue, Pinelawn, New York

Mr. Peter Kerber, Kerber’s Poultry Farm, 309 W. Pulaski Road, Huntington, New York

Mr. Charles A. Momberger, Curtis Breeding Service, Inc., Long Island Avenue, Holtsville, New York

Mr. John S. Randall, Randall Farms, Inc., No. Country Road, Mt. Sinai, New York

Mr. Maurie Semel, L. I. Vegetable Research Farm, RR #1, Box 39, Riverhead, New York

Mr. H. D. Wells, 24 River Avenue, Riverhead, New York

Mr. John H. Youngs, Hegemans Lane, Old Brookville, New York

AIR CONDITIONING TECHNOLOGY

Mr. William G. Wright, Nangano Bros., 93 Garden Street, Westbury, New York

Mr. W. A. Reichenschack, 34 Hull Avenue, New Hyde Park, New York

Mr. Erwin Lodwie, 22 Trues Drive, West Islip, New York

Mr. Walter MacPherson, 10 Linda Road, Port Washington, New York

Mr. Timothy Murphy, Plant 30, Grumman Aerospace Corp., Bethpage, New York

Mr. Lewis Rive, Manager, LILCO, 250 Old Country Road, Mineola, New York

Mr. George Sander, Penn Controls, Inc., 1024 Edgewater Avenue, Ridgefield, New Jersey

Mr. E. M. Tangel, Centrifugal Assoc., Inc., 150 East 42nd Street, New York, New York

AUTOMOTIVE TECHNOLOGY

Mr. Harold Klebanoff, Laban Equipment Corp., 627 West Merrick Road, Valley Stream, New York

Mr. Cosmo Orlando, Operations Manager, Dayton T. Brown, Inc., 555 Church Street, Bohemia, New York

Mr. Karl H. Suenner, Volkswagen of America, Inc., 818 Sylvan Avenue, Englewood Cliffs, New Jersey

Mr. Paul Van Buren, 25 East 77th Street, New York, New York

Mr. C. Leslie Carr, Jr., Field Manager Service Operations, Chevrolet Motors Division, General Motors Corp., 767 Fifth Avenue, New York, New York

Mr. Robert Riley, General Manager, Island Auto Electric, 35 East Merrick Road, Valley Stream, New York
BIOLOGICAL TECHNOLOGY

Mr. Norman Bleicher, Lab Animal Science Coordinator, State University, Downstate Medical Center, 445 Lenox Road, Brooklyn, New York

Dr. Mark Friedman, DVM, Chief Veterinarian & Director for Cancer Research, Sloan Kettering Institute for Cancer Research, 410 East 68th Street, New York, New York

Dr. Steven Weisbroth, DVM, Director, Department of Laboratory Animal Medicine, State University at Stony Brook, Stony Brook, New York

Dr. Ray Kriner, Department of Entomology, Rutgers State University, New Brunswick, New Jersey

Dr. James Kring, Box 1106, Connecticut Agricultural Exp. Station, New Haven, Connecticut

Dr. Edward Baylor, Marine Science Center, State University at Stony Brook, Stony Brook, New York

Mr. Harold Udeell, Director, Hempstead Town's Conservation and Waterway Department, 1 Parkside Drive, Point Lookout, New York

Mr. Albert Jensen, Director, Division Marine and Costal Resources, New York State Conservation Department, 4175 Veterans Memorial Highway, Ronkonkoma, New York

Dr. Jeffrey Wenig, Toxicologist & Associate Director of Research, Endo Laboratories, 1000 Stewart Avenue, Garden City, New York

BUSINESS ADMINISTRATION

Mr. Arthur E. Sanzenback, Management Consultant, 84 Fairview Place, Sea Cliff, New York

Mr. Guy Garrett, Personnel Manager, LILCO, 175 East Old Country Road, Hicksville, New York

Mr. Richard Scott Shiebler, Creative Director, Poor Richard Associates, 1826 House, 73 West Main Street, Babylon New York

Mr. Dwight Webb, Vice President, Merrill, Lynch, Pierce, Fenner, & Smith, Inc., 425 Broadhollow Road, Melville, New York

Mr. Thomas E. Farrell, 1285 Shaw Place, Seaford, New York

Mr. Sebastian Albrecht, Partner, Albrecht, Marmar Company, 206 Main Street, Farmingdale, New York


CIVIL & CONSTRUCTION TECHNOLOGY

Mr. Ralph Howell, Jr., E. W. Howell Co. Building Construction, 305 Deer Park Avenue, Babylon, New York

Mr. Lee E. Koppelman, Executive Director, Nassau-Suffolk Regional Planning Board, Veterans Memorial Highway, Hauppauge, New York

Mr. Leslie L. Lowey, P.E., 40 Brampton Lane, Great Neck, New York

Mr. Frederick R. Polorney, P.E.-L.S., 210 Third Street, Mineola, New York

Mr. Samuel Scheiner, 5346 Merrick Road, Massapequa, New York

Mr. Milton Alpern, P.E., Consulting Engineer, 550 Broadway, Massapequa, New York

Mr. Austin Emory, P.E., Regional Engineer, N.Y.S.D.O.T. Region 10, Babylon, New York

Mr. Walter G. Stackler, Stackler & Frank, 358-B Mid Island Shopping Plaza, Hicksville, New York

Mr. Ernest M. Swanton, General Manager, Dobiecki & Beattie Architects, 812 Suffolk Avenue, Brentwood, New York

COMMUNITY SERVICE ASSISTANT

Mr. James E. Kirby, Commissioner, Suffolk County Department of Social Services, 75 Fourth Avenue, Bay Shore, New York

Ms. Mary O'Hagan, CSW, School Social Work Supervisor, Board of Cooperative Educational Services, Third Supervisory District of Suffolk County, 507 Deer Park Road, Dix Hills, New York
DR. VICTOR B. ELKIN, Director of Psychological Services, 331 Clearview Court, Massapequa, New York

DR. BERT KAPLAN, 9 Harrow Lane, Old Bethpage, New York

MR. ANDREW CASAZZA, Director, Huntington Youth Board, 1328 New York Avenue, Huntington Station, New York

DATA PROCESSING

Mr. John P. Barbier, Assistant Vice President, Security National Bank, 125 Pinelawn Road, Melville, New York

Mr. Gerald D. Fogel, Assistant Director, Computing Systems Department, Grumman Data Systems Corp., Bethpage, New York

Mr. Henry Gheleberg, 24 Renault Drive, Flanders, New York

Mr. Philip J. Pesapane, President, Compute Procedures Corp., Colonial Commercial Bldg., Valley Stream, New York

Mr. Joseph T. Romo, District Sales Manager, New York Telephone Company, 141 Livingston Street, Brooklyn, New York

Mr. Arnold Schacknow, 3 Orchard Drive, Woodbury, New York

Mr. Henry Seppane, Vice President, INFOTEC, Inc., 70 Newton Road, Plainview, New York

Mr. John P. Tutunjian, Vice President, Bankers Trust Company, 1775 Broadway, New York, New York

DENTAL HYGIENE

Dr. Albert I. Sabot, 61-34 188th Street, Flushing, New York

Dr. Gilbert Sherman, 134 Wallace Street, Freeport, New York

Dr. Walter R. Strubel, 2 Joseph Lane, So. Farmingdale, New York

Mrs. Joan Phelan, Veterans Administration Hospital, Northport, New York

Ms. Janet Stanaland, 77 East 12th Street, New York

ELECTRICAL TECHNOLOGY

Mr. Jack Horowitz, Benjamin Electronic Sound, 40 Smith Street, Farmingdale, New York

Mr. Stuart Casper, Vice President, Narda Microwave Corp., Commercial Street, Plainview, New York

Mr. Robert Leahy, Vice President, Dyneell Electronics Corp., 75 Maxess Road, Melville, New York

Mr. Herbert Polak, Audio-Visual Facilities Engineer, National Broadcasting Company, 30 Rockefeller Plaza, New York, New York


ENGINEERING SCIENCE

Mr. Albert D. Capuro, Director of Admissions, Polytechnical Institution of Brooklyn, 333 Jay Street, Brooklyn, New York

Dr. Leonard DeFiore, Director of Admissions, Columbia University, School of Engineering & Applied Science, Seeley W. Mudd Bldg., 116 Street & Broadway, New York, New York

Mr. Eli Plaxe, Civil Engineering Dept., The City College, Convent Avenue & 139 Street, New York, New York

Dr. Thomas F. Irvine, Jr., Professor of Engineering, State University at Stony Brook, Stony Brook, New York

Dr. William H. Kaffer, Asst. Dean of School of Engineering & Science, New York University, University Heights, Bronx, New York

FOOD PROCESSING TECHNOLOGY

Mr. Stanley R. Kurtzman, Dietetic Service, Veterans Administration Hospital, Northport, New York

Mr. Ernest Dinda, 17 Beacon Hill Drive, Stony Brook, New York

Mrs. Montserrat Zayas Berrios, Box 32, West Brentwood, New York
MR. JACK GRAY, Director, Protein Development Laboratories, Port Washington, New York

MR. ANDREW OBERGEL, Luchens & Reichenbach Company, 2203-124th Street, College Point, New York

MR. CHARLES JANTZEN, Nassau Point Road, Cutchogue, New York

MECHANICAL TECHNOLOGY

MR. ARTHUR CERVENKA, Grumman Aerospace Corp., Bethpage, New York

MR. TOM GRANITE, Metco, 1100 Prospect Street, Westbury, New York

MR. ROBERT LEECH, The Ducon Company, 147 East Second Street, Mineola, New York

MR. KALVIN POGOLOFF, 1129 Bernard Drive, Westbury, New York

MR. CHARLES P. SAMMIS, Quality Assurance Corp., Bethpage, New York


MR. PETER FRIGANO, 64 Amy Drive, Sayville, New York

MEDICAL LABORATORY TECHNOLOGY

MISS ELAINE ARONE, 74 Biltmore Blvd., Massapequa, New York

DR. IRVING ABRAHAMS, Director of Laboratories and Research, Nassau County Department of Health, 209 Main Street, Hempstead, New York

DR. LOUIS R. FERRARO, Director of Pathology, Nassau Hospital, 259 First Street, Mineola, New York

DR. WILLIAM A. KINZLER, Superintendent of Schools, Farmingdale Public Schools, Van Gott & Grant Avenues, Farmingdale, New York

DR. HUGH J. McCauley, Chief of Pathology, South Nassau Community Hospital, 2445 Oceanside Road, Oceanside, New York

MR. DAVID J. WEINBLATT, Chief Corporation Counsel, City of Long Beach, City Hall, Long Beach, New York

SISTER MARY JEAN BRADY, C.I.J., Administrator, Mercy Hospital, Rockville Centre, New York

MORTUARY SCIENCE

DR. SIDNEY WEINBERG, Chief Medical Examiner, Suffolk County, Hauppauge, New York

MR. THOMAS J. THORP, Supervising F. D. Investigator, Bureau of Funeral Directing, Department of Health, 84 Holland Avenue, Albany, New York

MR. JOSEPH E. BEDELL, President, Funeral Directors, 7447 Amboy Road, Tottenville, Staten Island, New York

MR. FELIX A. FARENGA, Manager, Farenga Brothers, Inc., 204 East 116 Street, New York, New York

MR. GEORGE GOODSTEIN, New York State Funeral Directors Assoc., Inc., 369 Lexington Avenue, New York, New York

MR. JAMES NOLAN, Nolan Funeral Home, Inc., 5 Laurel Avenue, Northport, New York

MR. WILLIAM M. WEIGAND, 49 Hillside Avenue, Williston Park, New York

MR. VERNON C. WAGNER, Wagner Funeral Home, Inc., 125 Old Country Road, Hicksville, New York

MR. SAMUEL Q. BAXTER, 98-07 Ascan Avenue, Forest Hills, New York

NURSERY EDUCATION

MRS. PATRICIA DESCH, Woodward Parkway School, Farmingdale, New York

MR. ARTHUR MENDELSOHN, 17 West Maple Road, Greenlawn, New York

MR. LEONARD DAVIS, P. O. Box 673, Half Hollow Hills Schools, Melville, New York

MRS. MURIEL IVerson, Department of Social Services, Hauppauge, New York

MRS. ELIZABETH FLOYD, 65 Oak Street, Patchogue, New York
NURSING

Dr. Ellen T. Fahy, Dean, School of Nursing, State University at Stony Brook, Stony Brook, New York

Mr. Harry Heller, Associate Director, Peninsula General Hospital, 51-15 Beach Channel Drive, Edgemere, New York

Mrs. Eugenie C. Jones, RN, Nursing Services Consultant, Hospital Affairs Division, Suffolk County Department of Health, Suffolk County Ctr., Riverhead, NY

Mr. Coleman R. Lyons, Superintendent, Half Hollow Hills Schools, P. O. Box 637, Melville, New York

Mrs. Ruth Powers, RN, Coordinator of Nursing Education, A. Holly Patterson Home for the Aged & Infirmed, 875 Jerusalem Avenue, Uniondale, New York

Dr. Mildred L. Montag, Professor, Department of Nursing Education, Teachers College, Columbia University, New York, New York

Mrs. Catherine C. Stern, RN, Associate Professor of Nursing, Adelphi University, 110 Godfrey Avenue, Bayville, New York

Mrs. Rachel Rotkowitz, RN, Director of Nursing Services, The Long Island Jewish Hospital, 270-05 76th Avenue, New Hyde Park, New York

Dr. Edmund Pelligrino, MD, Director of Health Services, State University at Stony Brook, Stony Brook, New York

Ms. June S. Rothberg, Ph.D., Dean, School of Nursing, Adelphi University, Garden City, New York

Ms. Elizabeth Szczurkowski, RN, BS, Director of Nursing, Meadowbrook Hospital, 2201 Hempstead Tpke, East Meadow, New York

ORNAMENTAL HORTICULTURE

Mr. Joseph E. Clark, Vice President, Lewis & Valentine Nurseries, Inc., 627 Cedar Swamp Road, Glen Head, New York

Mr. James E. Cross, Nurseryman, Box 824, Cutchogue, New York

Mr. Robert Ench, President, Flower Time, Inc., 322 Walt Whitman Road, Huntington Station New York

Mr. Mel Lucas, Jr., Garden City Golf Club, Garden City, New York

Mr. Freeman L. Parr, Arborist, Parr & Hanson, Inc., 16 Charles Street, Hicksville, NY

Mr. Henry Reineke, Jr., Florist, Reinke's Florist, 225 Second Street, Mineola, NY

Mr. Robert A. Russell, Vice Pres. & Sect., J & L Adikes, Inc., 182-12 93rd Aveuc, Jamaica, New York

Mr. Ralph Snodsmith, Queens Botanical Gardens, 43-50 Main Street, Flushing, New York

Mr. William Titus, Nassau Cooperative Extension Services, 200 Hempstead Turnpike, West Hempstead, New York

Mr. Andre Viette, Martin Viette Nurseries, Route 25A, East Norwich, New York

Mr. Wilbur E. Wright, State University Agricultural and Technical College, Delhi, New York

PHOTOGRAPHIC TECHNOLOGY

Mr. Gordon H. Tubbs, Director, Education Markets Development, Eastman Kodak Company, 343 State Street, Rochester, New York

Mr. Joseph T. Morris, Executive Vice President, National Assoc. of Photographic Mfgs., 800 Mamaroneck Aveuc, Harrison, New York

Mr. Frank Adrian, Bell and Howell Corporation, 7100 McCormick Road, Chicago, Illinois

Mr. Reuben S. Siegel, Research Chemist, Townley Chemical Corporation, 115 Albany Avenue, Amityville, New York

Mr. Fred Gauthier, Laboratory Manager, Color Film Corporation, 777 Washington Blvd., Stamford, Connecticut

Mr. Jack Zimmer, Supervisor, Industrial Professional Products, Ilford, Inc., West 70 Century Road, Paramus, New Jersey

Mr. L. O. Wasmoen, Training Manager, Pako Corporation, 6300 Olson Memorial Highway, Minneapolis, Minnesota
POLICE SCIENCE

DR. ROBERT R. J. GALLATI, Director, New York State Identification and Intelligence System, Executive Park Tower, Stuyvesant Plaza, Albany, New York

DR. IRVING GOLDBERG, 6 Stratford Court, No. Bellmore, New York

JUDGE JACK B. WEINSTEIN, United States District Court, Eastern District, Brooklyn, NY

MR. LOUIS J. FRANK, Commissioner, Nassau County Police Department, 1490 Franklin Avenue, Mineola, New York

MR. JOHN L. BARRY, Commissioner, Police Department, Suffolk County, Hauppauge, NY

MR. PHILIP F. CORSO, Sheriff, Office of the Sheriff, Suffolk County Police Department, Riverhead, New York

MR. THEODORE DONNELLY, Inspector, Personnel Bureau, Suffolk County Police Department, Hauppauge, New York

MR. RONALD J. EDEEN, Director of Probation, Suffolk County Department of Probation, Yaphank Avenue, Yaphank, New York

MR. JOHN P. FINNERTY, Councilman, Town of Islip, 57 Park Avenue, Bay Shore, NY

MR. JAMES R. KETCHAM, Deputy Commissioner of Police, Nassau County Police Department, 1490 Franklin Avenue, Mineola, New York

MR. FRANCIS B. LOONEY, Assistant Police Commissioner, The City of New York, Police Department, New York, New York

MR. WALTER A. LOONEY, Deputy Chief Inspector, Commanding Officer, Training Division, Nassau County Police Department, 1490 Franklin Avenue, Mineola, New York

MR. LOUIS J. MILONE, Director of Probation, Nassau County Courts, County Court Bldg., 262 Old Country Road, Mineola, New York

MR. MICHAEL P. SENIUK, Sheriff, Office of the Sheriff of Nassau County, Mineola, NY

DR. SIDNEY B. WEINBERG, Chief Medical Examiner, Suffolk County Office Building, Hauppauge, New York.

RECREATION LEADERSHIP


MR. RICHARD A. FRETCH, Commissioner, County of Nassau, Department of Recreation and Parks, Eisenhower Park, East Meadow, New York

MR. JOHN McGINN, Director of Recreation, Dept. of Recreation, Union Free School District #14, 37 East Rockaway Road, Hewlett, New York

MR. CHARLES F. CHRISTIANO, MFG. Rep. & Handicapped Consultant, 5 Maywood Place, Kings Park, New York

MR. STANLEY A. BREKNE, Supt. of Recreation and Parks, 46 N. Ocean Avenue, Freeport, NY

MR. BRUNO ZALIEGA, Superintendent of Parks, County of Suffolk, Parks and Recreation Department, Montauk Highway, West Sayville, New York

MR. ROBERT A. CORDANI, Program Coordinator Town of Islip, Dept. of Parks, Recreation and Cultural Affairs, 555 Clayton Street, Central Islip, New York

SECRETARIAL SCIENCE

DR. HERMAN P. SALZ, 333 Main Street, Northport, New York

MRS. KATHY SULLIVAN WERNER, Secretary to Hon. Howard T. Hogan, Presiding Justice, Appellate Term of the Supreme Court, State of New York, 9th and 10th Judicial Districts, Mineola, New York

MR. HOWARD W. GOLDSON, Goldson, Rose and Goldson, 114 Old Country Road, Mineola, NY

MR. PAUL C. LUDWIC, JR., Austin & DuPont, 170 Old Country Road, Mineola, New York
Campuses

OFFICE OF THE CHANCELLOR, 99 Washington Ave., Albany, N.Y. 12201

UNIVERSITY CENTERS
State University at Albany • State University at Binghamton • State University at Buffalo • State University at Stony Brook

MEDICAL CENTERS
Downstate Medical Center at Brooklyn • Upstate Medical Center at Syracuse

COLLEGES OF ARTS AND SCIENCE
College at Brockport • College at Buffalo • College at Cortland • College at Fredonia • College at Genesco • College at New Paltz • College at Old Westbury • College at Ononta • College at Oswego • College at Plattsburg • College at Potsdam • College at Purchase • Upper Division College

SPECIALIZED COLLEGES
College of Forestry at Syracuse University • Maritime College at Fort Schuyler (Bronx)

AGRICULTURAL AND TECHNICAL COLLEGES (Two-year)
Alfred • Canton • Cobleskill • Delhi • Farmingdale • Morrisville

STATUTORY COLLEGES
College of Ceramics at Alfred University • College of Agriculture at Cornell University • College of Human Ecology at Cornell University • School of Industrial and Labor Relations at Cornell University • Veterinary College at Cornell University

COMMUNITY COLLEGES (Locally-sponsored two-year colleges under the program of State University)
Adirondack Community College at Glens Falls • Auburn Community College at Auburn • Borough of Manhattan Community College • Bronx Community College • Broome Technical Community College at Binghamton • Clinton Community College at Plattsburgh • Community College of the Finger Lakes at Canadigua • Community College No. 9 at Long Island City • Corning Community College at Corning • Dutchess Community College at Poughkeepsie • Erie Community College at Buffalo • Fashion Institute of Technology at New York City • Fulton-Montgomery Community College at Johnstown • Genesee Community College at Batavia • Herkimer County Community College at Ilion • Hostos Community College at South Bronx • Hudson Valley Community College at Troy • Jamestown Community College at Jamestown • Jefferson Community College at Watertown • Kingsborough Community College • Mohawk Valley Community College at Utica • Monroe Community College at Rochester • Nassau Community College at Garden City • New York City Community College • Niagara County Community College at Niagara Falls • North Country Community College at Saranac Lake • Onondaga Community College at Syracuse • Orange County Community College at Middletown • Queensborough Community College • Rockland Community College at Suffern • Schenectady County Community College at Schenectady • Staten Island Community College • Suffolk County Community College at Selden • Sullivan County Community College at South Fallsburg • Tompkins-Cortland Community College at Groton • Ulster County Community College at Stone Ridge • Westchester Community College at Valhalla